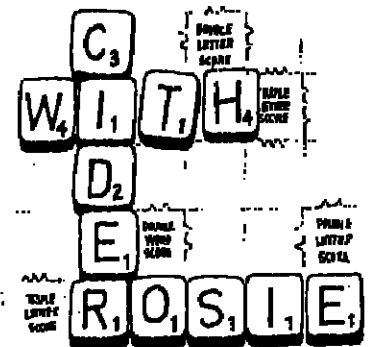




In 1980 Harry Lipkin received a postcard from his fellow scientist ANDREI SAKHAROV which proved that the Soviet exile was still active in frontier physics despite his isolation (page 17)



Oxford is top in English, Cambridge in biological sciences, and the London Business School and Bath are top in business and management according to a new survey of the "BEST" DEPARTMENTS (pages 10 and 11)

What ETHICAL RULES should govern research? In its new code the Social Research Association rejects the traditional alternatives of lofty but unattainable ideals and unenforceable regulations and instead favours an ethical framework in which researchers can work out their own dilemmas (page 13)

Two views of POLYTECHNICS: Jeffrey Johnson asks why polytechnics have not been more successful in forging links with industry, and Patsy Healey and David Watson argue that there is an alternative to the close collaboration between the NAB and the CNAA (page 16)

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The house of Lords



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The fight for tenure

Academic tenure remains an issue of great political significance and has become an issue of great administrative significance. Mrs Thatcher is said to thump the Cabinet table whenever she is reminded that tenure has not yet been summarily abolished. In a Parliamentary answer just before Christmas Mr Peter Brooke confirmed that the Department of Education and Science's consistent advice to the Privy Council on new and revised university charters is that provision should be made for actual redundancy to override the claims of tenure. The University Grants Committee was obliged to include this issue in its great debate, which it did so in the form of the obliquely worded questions 21 and 23.

So the present strategy of conspicuous inactivity being pursued by the universities is probably misguided. The issue of tenure is not going to go away if it is ignored for long enough. The vice chancellors are likely to be disappointed if they hope that their proposals to reform tenure will bore everyone to death, from Sir Keith Joseph to the Association of University Teachers. The yawning gulf will not work for ever. Nor is the AUT's approach more effective. This seems to be to concede the substance of the case against secure academic employment, by acquiescing in the wholesale redundancy of AUT members on fixed-term contracts and turning a blind eye to managerial pressure on older university teachers to retire voluntarily, while defending its outer shell in the shape of tenure.

Of course, tenure is how of almost no administrative consequence. It has

not protected university teachers from a rate of job loss that far exceeds that experienced by school and college teachers who are without its protection. Nor, contrary to lurid and envious rumour, has the possession of tenure led to especially generous redundancy payments. Most university teachers who have retired prematurely have received in compensation sums that are broadly similar to those commonly paid to managers in industry.

If tenure has offered rather little protection to permanent university staff, it may have been an active disadvantage to those who never received its protection. It can be argued that the existence of tenure, allegedly an attractive and indeed virtually unbreakable contract of employment, has led to a sharpening of the distinction between permanent and less permanent staff and so to a worsening of the conditions of the latter. Fixed term contracts with all their consequent abuses can be regarded as the dark corollary of tenure.

Nor is it possible to argue that tenure is a serious obstacle to effective management, which presumably must be at the bottom of the Government's formal objections to it. Most universities have sufficient of their staff on non-tenure contracts to provide ample managerial flexibility. In any case the major problem facing them today is not getting bad people out but getting good people in. The recruitment gap stretching between the end of the new blood programme in 1985 and at the earliest 1990 will be the result not of the generosity of tenure but of the scarcity of resources. Arguably mes-

sing about with tenure would exacerbate it.

So if tenure does not lead to university teachers receiving over-generous treatment and if it is not a serious obstacle to managerial efficiency, why is the Government so eager to see it curtailed if not abolished? Or for that matter, why is the AUT so determined to defend it to the last fixed-term contract, and the vice chancellors so anxious to send the dog of tenure to sleep again? Surely when the Government recognizes these two facts, it will lose interest. Or when the AUT and vice chancellors recognize them, they will abandon their Verdun and Vichy-style defence of tenure.

Neither of these convenient outcomes will happen because tenure remains a crucial issue for the universities. But tenure is more important as a symbol than as a practice. For it embodies the collegial values that are typical of the university. By seeking to undermine tenure the Government is serving notice that it no longer respects this collegiality and wishes to see it superseded by the tough "them and us" values of industry. So it is not altogether too fanciful to see the battle over tenure as a struggle for the soul of the university. But this imposes particular responsibilities on both the vice chancellors and the AUT. The former cannot regard tenure just as an inherited custom-and-practice the serious reform of which would cause more trouble than it was worth. Nor can the latter see tenure exclusively in trade union terms. For what lies behind tenure is far more important than tenure itself.

New hope on jobs

The Standing Conference of the Employers of Graduates has expressed cautious optimism about job prospects for graduates in its latest report. But the National Union of Students emphasized this week that graduates could no longer look forward to secure, well paid, and satisfying jobs and therefore that it was dishonest to justify inadequate student grants by claiming that students almost automatically become high earners in their later careers.

Both views are broadly correct and there is no necessary inconsistency between them. The on-off economic recovery of the last 12 months may be too feeble to dislodge the mass unemployment that present Government policies have succeeded in institutionalizing. But it is probably sufficiently strong to lift the job prospects of more favoured groups, like graduates.

In any case the technology-intensive industries that are among the largest consumers of graduates have been least affected by the recession and the quickest to recover. Economic recovery may do little for the semi-skilled and skilled workers once employed in traditional manufacturing industry. But it is likely to be aided by new graduates, whose skills are in demand for graduates at any rate in

science and engineering.

The changing output of higher education may also have had an influence on the improving job market for graduates. The growth subjects in recent years have been in science and technology and, professional disciplines. The computer scientists, business managers, and accountants now being produced by universities and polytechnics are very much the graduates in demand in the growth industries of the 1980s. This suggests that crude broad-brush manpower planning can work, provided not too much attention is paid to specific manpower shortages in detailed employment areas. Certainly the evidence seems to show that the image of higher education can be manipulated in ways that make it more congenial to industry.

Yet the NUS is also right to point out that graduates can no longer expect to get the good jobs which their predecessors in the 1960s and even the 1970s regarded as a virtually automatic reward for passing through higher education. As the proportion of graduates in the labour force rises, which it will do until at least 2020 even if there is no further expansion of higher education, the relative value of a degree is bound to fall. This is a structural and higher education is not immune from the forces of the market, and for the employer it

will become less effective as a sieve.

This long-term secular decline in the positional value of higher education has been intensified by the short-term collapse in all job markets produced by the recession. So recent graduates have suffered a sudden plunge in their prospects compared with those who graduated before the recession got under real way in the later 1970s. Future graduates can therefore look forward to a modest recovery in career prospects if the present recovery does not fizzle out. But any modest recovery would not mean that graduates had become less privileged in the labour market, the point emphasized by the NUS.

Two broad conclusions can be drawn from both the SCOE report and the NUS's corrective views. The first is that the graduate labour market is immensely complex, so complex in fact that to regard it as an entity is fundamentally misleading. A jobs boom for accountants or computer scientists can go hand in hand with a jobs famine for historians or sociologists. The second is that there is no simple connection between the value of a degree to the individual and the demand for graduates in the economy. A decline in the former is perfectly compatible with an increase in the latter.

WISEing up science

The title of the Women into Science and Engineering Campaign makes it sound like an effort to struggle against a well-guarded fortress. And the main organizers of WISE, the Royal Society, the Science Commission, and the Engineering Council, should not underestimate the barriers which still stand in the way of young women who choose to follow careers in technical subjects.

With this in mind, three questions arise at the beginning of WISE year. What has changed since 1969, when WISE was first set up? What are the new barriers? And is the campaign for the right one?

The answer to the last question is

clear - continuing relative economic decline, skill shortages in key industries, and a view of women as an underused resource. Economic pressures may be more effective at dissolving old obstacles than the rhetoric of equal opportunity.

If this is so, the modest funds put up by WISE's two sponsors may be enough to start any new initiatives from scratch, but to bring together existing schemes under a single umbrella, and create a feeling that things are moving in the right direction. After all, while women only account for one per cent of professional scientists in the United Kingdom, the number of female undergraduates in science courses in universities has risen from 10 per cent (though only

University and polytechnic engineering departments will probably welcome an increase in applications from women students as a way of increasing their enrolments, and hence their claims on resources. But what about teachers of engineering in higher education? The WISE strategists should note that of 33 "new blood" appointments in engineering and technology in universities last year, only one was a woman. As Professor Daphne Jackson of Surrey University pointed out last week, the age limits on new blood appointments work against women. If this continues, the eager young female recruits to engineering coming out of the schools will look to find for any women teachers to instruct and encourage them when they enter higher education.

Laurie Taylor



("One quarter of students taking higher degrees suffer feelings of personal isolation" - research report, THES)

"Ah, there you are. Glad you could come. Very glad. Don't stand around in the corridor. Good heavens, that won't do. Come in. Come in. Thank you. Oh yes. And grab a chair, will you? Sit yourself down. My word, it's bleak this morning, isn't it? 'The East Wind Doh Blow and We Shall Have Snow' - or is it the West Wind or the North Wind for that matter? Never can remember, can you? Funny how memories get in the way of remembering. Ever thought about that? No, I can't say... But that's quite enough of this impersonal chatter. How are you? Very well, thank you. Yes, yes. But deep down. At the psychological level? Oh, alright. And how are you managing to relate to the department? Can't complain. No sense of developing alienation? Not that I can think of. No anomie? Feelings of disconnectedness? Ontological insecurity? None that I've noticed. No. Jolly good. And what about more intimate matters. Are you on drugs? No... I... Because you can speak to me in absolute confidence. Oh yes, I may not take drugs myself at the moment, but strictly between you and me there's nothing like better as soon as I get home than a very large G and T - quite honestly with a great deal more G than T. Well, I... And interpersonally? Everything all right there? No sexual difficulties? I take it you're not gay? No, I'm... Because it wouldn't matter a jot if you were, you know. Not at all. I want to make that very clear. In this... erm... delicate area of personal life it takes all sorts. Oh, yes. In fact, to speak quite frankly, my wife and I occasionally enjoy some of those more explicit foreign videos. Quite arousing in a way. Yes indeed. So all in all then, you feel well looked after? Yes, considering... Do speak quite openly. Try to think of me as a very close personal friend. Now, "considering" what? Well, considering that I'm only here for 20 minutes to fix the departmental typewriter.

The Government should seriously consider whether to hand over responsibility for funding university extra-mural departments to the University Grants Committee. The UGC's own continuing education working party is to recommend this in its first report.

This would mean the end of the 77-year-old scheme under which the Department of Education and Science makes direct grants for adult education to "responsible bodies", 22 of England's 34 universities. When the scheme started its purpose was to prepare mature students for university study; in recent years it has provided the money for liberal adult education. Many extra-mural departments fear that their budgets would be ruthlessly squeezed if they ceased to enjoy the protection of earmarked grants and had to compete with the big battalions in science and engineering. But an end to "responsible body" status would be welcomed by the 12, mainly new and technological, universities, and all the polytechnics which are at present excluded.

The members of the continuing education working party failed to agree among themselves and eventually compromised with the wording that the present responsible body arrangements should be subject to review by all interested parties.

But this form of words hides the fact that the committee was severely split between those who thought that responsible body status should be abolished and those who agreed that this would leave universities without guarantee that the DES would maintain funding for this sort of activity.

The committee's thoughts are spelt out in the main body of the report. It suggests three changes to iron out the anomalies in the current system.

These are extending DES direct funding from adult liberal education to other forms of continuing education; giving all universities responsible body status; and transferring the responsibility for funding all extra-mural work in universities, including the responsible body grant, into the UGC's control.

It is also proposed that the UGC should set up a standing committee which would oversee developments in continuing education and advise the

committee in its discussions with the DES.

A survey carried out among all the universities found that mature students on full-time degree courses accounted for 12 per cent of undergraduate and 40 per cent of postgraduate intake. More than 250,000 students attend extra-mural courses a year and 200,000 attend post-experience vocational education (PEVE) courses.

But the provision of PEVE courses is still concentrated in the traditional areas of medicine and education while it is "disappointingly low" in engineering, science and other courses, says the report. Short courses however, it is claimed, add up to 12 per cent of the total university teaching effort.

The disproportionate low financial support provided by the UGC to part-time and short course students is a disincentive.

While each average full-time undergraduate student is funded in the recurrent grant to the tune of £3,800, part-time students get support equal to £2,050, extra-mural students £400 and post-experience students £142.

To encourage more non-traditional work, the committee recommends that fees should cover directly attributable costs but the UGC should seek extra funds from the Government to allow for £500 in grant for each full-time equivalent post-experience student.

Part-time degree and diploma work should also be encouraged by a similar grant level to that given to full-time students so that universities put continuing education on an equal footing with research and the teaching of young undergraduates.

In spite of early hostile reactions within the committee, it has eventually adopted a wide definition of continuing education describing it as "any form of education, whether vocational or general, resumed after an interval following the end of continuous initial education".

The 23-point list of recommendations reflects this in the support it gives to part-time modular work and the development with the public sector institutions of a credit transfer system.

It has also thrown its weight behind the Manpower Services Commission's adult training strategy for a comprehensive training provision with safeguards to ensure that the unemployed are not excluded.

No radical proposals for student support are included but support is given to the various MSC measures for grant-aid to employers, and the proposals for a loan scheme. Tax concessions to individuals would need to be reconsidered if they were rejected.

The report is due to be published by the UGC next week.

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Published by Times Newspapers Ltd, P.O. Box 1, Gray's Inn Road, London WC1X 8EH. Editor: John Gifford. Managing Director: John Gifford. Printed by Times Newspapers Ltd, P.O. Box 1, Gray's Inn Road, London WC1X 8EH. Telephone: 01-253 3000. Telegrams: TIMES, LONDON. ISSN 0950-0804. Registered at the Post Office, ISSN 0950-0804.

The Times Higher Education Supplement

January 27, 1984 No 586 Price 60p

UGC wants to take control of extra-mural cash

by Felicity Jones

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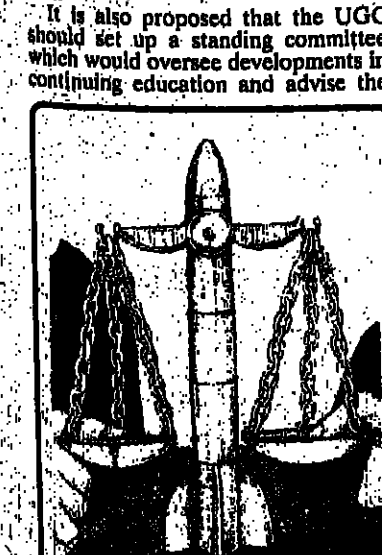
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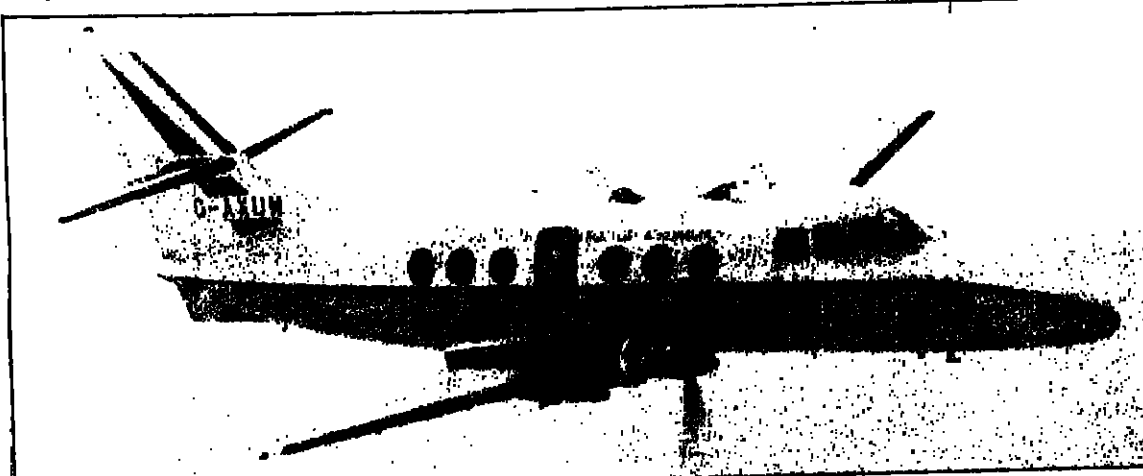
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The balance of nuclear terror, 15



Cranfield Institute of Technology's college of aeronautics has modified a Jetstream aircraft for the Central Electricity Generating Board's research into air pollution, including acid rain.

Meanwhile Cranfield, in Bedfordshire, the Department of Education and Science's profit-making flagship, is about to take on board the Royal Military College of Science at Shrivenham, Oxfordshire.

The Ministry of Defence has been looking for two years for a university

Lift-off for army courses

to take over civilian teaching for the 400 army officers who take engineering degrees, MScs and short courses at Shrivenham. Military training will still be carried out by the army and the college will still be run on military lines.

But Shrivenham students will be

awarded Cranfield degrees. Some Cranfield staff may teach on Shrivenham courses and some Shrivenham students may go to Cranfield, according to the MoD. Shrivenham civilian employees will be transferred to Cranfield's staff.

The transfer is expected to take place this summer, although detailed negotiations are still taking place. The MoD contract for taking over the staff and running costs of the college is understood to be in the region of £3m.

CNAA stakes claim to influence on planning

by Karen Gold

The Council for National Academic Awards has written to all polytechnic and college directors asking them to influence in past and future National Advisory Body planning exercises, and reaffirming its commitments to providing quality rankings for them.

The letter from CNAA chief officer Dr Edwin Kerr argues that the CNAA's "independent contribution" to NAB can be a voice for the public sector higher education system which would not otherwise be heard.

In the recent planning exercise for 1984-5 the CNAA played a major part in the policy of "concentration" on large and successful institutions which was introduced at a late stage. In improving the academic plans for various institutions, in getting an increase in the money available and better distribution, and in improving plans for future exercises, Dr Kerr's letter says.

But the council considered it was not in the public interest or the interest of higher education to refuse to give quality advice. Giving that advice did not (as the polytechnic directors, trades unions and others have argued) threaten the partnership between CNAA and institutions, he writes. He adds: "Partnership between the council and an institution is valueless if the arrangements between the two are seen by the parties or by others as ones which prejudice the right of either to take independent and differing positions on matters of substantial importance".

More occasions when the CNAA is asked for advice are likely to arise soon, he warns: NAB is still looking at architecture courses and the Wales Advisory Body planning exercise is about to start.

The principals and directors are therefore asked to give their views on how future ranking exercises might be carried out without the controversy which surrounded the council's ranking of town planning courses in advice to NAB last year.

He outlines four areas for consultation: the need for a central CNAA responsible for decisions on quality, rather than it depending on subject boards; the extent to which existing validation machinery and comparative quality machinery need to be separate; the extent to which the council and institutions can have "partnership" in quality judgments; and how best to develop criteria and practice for making quality judgments.

In some cases, he says, particularly where there are many different courses in a subject area, relative quality judgments may be less useful than a description of the range of courses. But he implies that those who oppose the CNAA moving into this area because it would break confidence between the council and institution should note that "CNAA reports on visits to courses are circulated to local education authorities and Her Majesty's Inspectorate and the information in them becomes more widely available than is sometimes thought".

Leader, back page

V-cs propose own inquiry on efficiency

by Ngalo Crequer

Vice chancellors are to propose their own inquiry into the efficiency of the universities to beat off a Department of Education and Science scheme to bring in private consultants.

Vice chancellors and officials from the DES and the University Grants Committee have been discussing the terms of reference of an inquiry since Sir Keith Joseph, Secretary of State for Education suggested in December that a "Rayner-style" inquiry should be held.

Yesterday the general purposes committee of the Committee of Vice Chancellors and Principals was considering a scheme that would keep the inquiry very much in-house.

DES officials would like the inquiry to be run either by a Government department, or by a private firm of consultants, in much the same way as the current inquiry into the voluntary colleges has been undertaken.

Here, accountants Arthur Andersen and Co, have visited colleges to look at how they determine their financial needs; how internal procedures work; variations in accounting for income and expenditure; and how performance is measured.

Their report, which is now being assessed by the department, is due to be published at the end of this month.

The VCVP, supported by the UGC has said that any inquiry should not cover the academic performance of the colleges.

continued on page 3

Row erupts over proposals on polytechnic admissions

A row between the Universities Central Council on Admissions and the Department of Education and Science reveals that arrangements for the proposed polytechnic central admissions scheme are close to stalemate.

The DES announced last week that it was giving £210,000 to get the scheme off the ground - but only on condition that it was self-financing. There would be an early extension to the major colleges, and that it would link in with the universities' scheme.

But Mr Ronald Kay, secretary of UCCA, has written to the DES saying the conditions were never agreed by the UCCA council. His letter to a senior civil servant argued it

was "improbable" that UCCA's procedures could be used to extend the scheme beyond the polytechnics. "I am at a loss about the conditions attached to your grants. The conditions were not known to the council at its meeting," he wrote.

Mr Kay told THE TIMES this week that although he knew what DES views about the scheme were, it was not known that they were attaching these conditions to the award of the grant.

Dr Harry Kay, vice-chancellor of Exeter University and chairman of UCCA, said that the conditions were a matter between the DES and the polytechnics.

As for extending the scheme to the

colleges, "I am not clear what the DES wants, but we have been asked to do this scheme by the polytechnics, we have not been asked by the colleges, and we do not want to move from that at the moment. We are a long way from anything else."

He also said it was unclear what the DES meant when it talked about linking the "poly" scheme with the existing universities scheme.

According to the DES, the misunderstanding arose because the council did not receive a DES letter outlining the Government's conditions before its meeting.

But there is also another threat to the scheme. Apart from the major

colleges of higher education being angry at their apparent exclusion, local education authorities have said they will not support the scheme unless it includes the colleges at the earliest possible date.

Since the DES grant is only one-third of the scheme's cost for the polytechnics alone, unless the Committee of Directors of Polytechnics - who are contracting the scheme with UCCA - can find over £400,000 from elsewhere the scheme still looks fragile.

At its January meeting, the Council of Local Education Authorities decided only to support the scheme if it included the colleges.

Social attitudes survey is not so new

UGC influence

History lesson

Poly freedom

College criticized over business studies teaching

Councillors oppose transfers

at a cost

the engineering board, instead of directly to the council. This is part of a general move to make it £13m a year's innovation; and appraisal of social, economic and technological aspects of new topics in science

In spite of the decision to maintain both observatories for now, the condition of sites is bound to arise again. Remote operation of the observatories becomes normal in a year's time.

DON'S
DIARY

FIRST DAY BACK

Ours is a small front office; today, people, papers and phone calls seem to be coming and going all day. The centre is in its own building, two miles down the road from the main college.

Some 2,000 copies of the community newsletter, just back from the printer, to be collected (three double pages, of which the middle page spread is our programme); distribution door-to-door round local streets this week. Between other activities, different staff all day stand over the table interleaving the pages. Three different centre members, during the day, take some away for delivery.

Duplicated an invitation to 11 people in local authority housing/social services/personnel/training departments, and district health and adult education people, for a meeting here next week, following the survey Judy did last term on English as a second language needs in our area. The meeting, if they all come, could be useful to update information on the map of classes locally, as well as discussing how we can improve our own provision at the centre. We plan to start classes again here, two mornings a week (with a creche) in February. The meeting will also be by way of publicity for those and for the "Wood words and numbers" linked skills courses due to have its open day next week. (Posters for that being printed and distributed tomorrow).

Phone call from Peter Midway in Leeds to confirm the visit of New York adult educationalists in a fortnight. They will be joining the afternoon "New Horizons" class. They want to see adult literacy work with particular theories and approaches.

The week before the American visit, the 16 women on the course will be going away for a study weekend at the college field centre in Kent. There are bits to organize today, too, for that. Rang the video tutor to confirm her session on the Saturday. At last week's planning meeting, suggest that we begin the term's theme, "How we are governed" with some discussion of the group's ideas on concepts of freedom, democracy, and representation. Media coverage in the last few days on the launch of the Freedom of Information campaign may be relevant; no shortage of commentary on Orwell's relevance for this year. Some students chose to read 1984 for the break. Others, *Cry, the Beloved Country* and *Second Class Citizen*.

This week must include something about their book on their evaluation sheets given in at the end of the term; plus some material on note-taking techniques; and an introductory look at the history of parliament. Brief slides in the office with Wendy on this in between photocopying application forms for the "keyholder" vacancy we are to advertise in the centre this week. Having a bit and social club means we have a fortnight of playing the centre to link with bar times and weekend use; a rota of up to five part-time "keyholders" paid from the bar income staff those evenings and Sunday midday.

Another job being advertised, for which, with Dave, had to check the job description today, is a photography worker funded by a grant just approved for the Centre. The Greater London Council, following for one year, the worker, is to develop and critical understanding of photography with groups and individuals; the receiving end of negative self-imagery: literacy students, black people, older people, women and the single, unemployed, homeless.

Woman with older man put her face in the office window: was our group for older people running this week? Every Monday but this one, I should find the group regularly in the office (rather than being by her)

in joining what I described: a group which discusses past and present experience (hence its title—the "Now and Then" group), a space where older people know they won't be out of place; he could join other things, too, when he gets to know us better. Took away copies of the newsletter and our annual report, saying he would be back next week.

This term's efforts with the group will be concentrated towards preparing work for the "Exploring Living Memory" exhibition and conference at the Festival Hall in February. The report of our own conference of four local reminiscence projects here in July came off the printers just before Christmas, and will be part of our contribution to the event next month.

Brief word upstairs at midday about the possible part-time literacy tutor coming in tomorrow evening. The replacement to one of our two full-time literacy staff has been frozen for six months. It's made things hard. With something of a feeling of guilty confessions, Steve and I report to each other requests for two extra meetings that we had separately accepted on the phone this morning. I, with the coordinator of a local training project, who wanted to come and find out our approaches to general studies, literacy and "fresh start" (her feeling being that their stress on business studies may be too narrow for the 19 to 25-year-olds they are trying to teach); Steve, with a computer studies network wanting to know about development work into cold storage, too; the first stage of an effort at methodical research into computer work and literacy had to come to a halt at the end of the summer term. So Steve is at the stage of being contacted now by all sorts of people turning to him as an expert, and feeling he's only just begun the work he knows needs doing.

Huge van delivering the workbenches ordered for the carpentry workshop turned up in the early afternoon. At least it wasn't the beer delivery. (This arrives once a week or so at the front door always when three other things are happening.) At the same time, a woman about my age came in asking what we could do for someone in her position: a single parent for the last 22 years, the youngest child now 11, feeling the need for training and qualifications. No O levels. Would have suited "New Horizons", of course, but for the fact that it's now halfway through. Found leaflet for the Greenwich Education and Training Advice shop, and encouraged her to get in touch with them.

A brief chat with Jo, the parents and toddlers worker, before her session began at 1.30 on how we can work to encourage black women to use the group. She was glad of the suggestion that Maureen could work with her this term. (Maureen is a black member of staff on attachment from the turning point apprenticeship scheme, the two-year community work training course at college).

Three phone calls and two brief meetings in the afternoon about tonight's meeting of the Caribbean Studies Steering Group, of which I am chair, and which has been developing work at Goldsmiths over the last 2½ years. The two full-time workers are appointed and have been at work for a month; formalities of employment functions, etc. to be clarified tonight. Several things to anticipate and sort out before the meeting. Put in the post of an order for two of our publications from a library in Liverpool. Circular to be typed and copied for sending out to members of the centre's members' planning committee, for meeting next week. The members' association AGM is due in March; at the meeting, we must talk about an idea for attracting a large number to this. Posters on the centre walls or circulars around the group on paper, on a "we're here, well, aware, speak to a minority. There's a lot of talk and personal contact needed to encourage people uncertain of the language of meetings and structures to believe they have something to gain from coming. Sent the letter out for next week. We'll see who comes.

Jane Mace

The author is head of the Centre, School of Adult and Community Studies, Goldsmiths College.

'Stale sandwich' under attack

by Owen Surridge

A civil servant's attack on sandwich education, which he described as second-rate and a failure, brought indignant dissent from an audience of academics and industrial personnel officers last week.

Mr Jason Tarsh, of the Department of Employment's unit for manpower studies, was airing his own reservations about the system at a London conference run by the Education for Industrial Society. "I am sceptical about sandwich education," he said and listed three peculiarities which posed fundamental questions. "Why are only a few universities and the polytechnics interested in it? Why, since it is regarded as the interface between education and industry, has it caused friction on both sides, which it should not have done? Why has it evolved, seemingly without any clear intention?" he asked.

"I have noticed that people have a kind of faith in sandwich education," said Mr Tarsh. Contrasting the sandwich system with normal higher education courses, he said the latter were evidently highly valued by employers, despite the comparative looseness of their content, on the ground that they provided graduates with "trained minds".

"If that is so, why the more work oriented courses?" he asked, adding that sandwich courses seem to be run in the second-class institutions. This suggested, by implication, lower expectations of students.

Suggesting employers used the sandwich system primarily as a recruitment aid, Mr Tarsh noted that it also allowed them to use students while they were studying. Summing up, he said: "It is not clear to me that there is a good *a priori* case for sandwich courses. They can only be defended on grounds of integration, which often is not achieved." He added: "While the universities are still talking about integration the polytechnics have already started talking (of sandwich courses) as supervised work experience." He concluded that the system was a failure "and the greater the

failure, the greater the need to question who should pay for the courses. This brought an instant reply from Betty Hollinshead, Manchester Polytechnic, who pronounced herself very worried by these remarks. "There are others in government departments like him," she warned, "but it is wrong to look at sandwich education in isolation. Never mind the skills, what about attitudes and motivation? Who teaches them?"

Mr Alan Daniels, of the Institute of Industrial Training, Brunel University, pointed out that industry provided £33m worth of support for sandwich education every year, compared with the government's £3.4m. "We need a way of getting industry's input into the system, he said, predicting that eventually the universities would have to rethink their attitude of non-involvement and their pursuit of pure research. "Universities will not be able to be so complacent," he said, "because they will have to go out and get money, so they will have to do more applied research."

University lecturers are to try to unite the TUC and the University Grants Committee in their fight to extend access to higher education for women.

An Association of University Teachers motion to this year's Women's TUC in Torquay attacks Government policies which disregard increasing demands from female school-leavers and mature women.

It urges delegates to call on the TUC general council to tackle the UGC and express "vigorous opposition" to policies which "curtail women's hardwon rights to equality of educational opportunity."

It suggests the UGC and TUC should jointly explore ways of making higher education more available to the community.

Criticism of the Government's rejection of right of access to education for prisoners as recommended by the Commons select committee on education, science and the arts is also likely in Torquay. The National Association of Teachers in Further and Higher Education has submitted a motion calling for more attention and resources to be devoted to the education of women prisoners.

Natfhe is anxious that what education exists for women prisoners is directed towards traditionally female areas and interests.

It wants the introduction of new forms of open learning and action to equip prisoners with vocational skills which will enable them to enter non-traditional as well as traditional forms of employment for women.

Natfhe is also to voice its fears that the redeployment of TOPS resources to meet the objectives of adult training strategy may lead to a reduction of educational opportunities for women.

Union aims to help women

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A retired tutor at the Royal College of Art, Robert Buhler, has won the Hunting Group's first prize of £5,000 for the best oil painting of 1983 with this impression of vineyards at Neuchâtel. He already has paintings in the Tate Gallery and the Victoria and Albert Museum.

Demo over disciplinary move

Students staged a demonstration at Warwick University this week to coincide with the start of disciplinary proceedings against five students involved in disturbances last October during a visit by Sir Keith Joseph, Secretary of State for Education and Science.

They had already voted to reject a university offer to drop a £30,000 "fine" on the students' union in return for "safeguards" against further violence. But a call for an occupation of the senate building was defeated overwhelmingly.

The students' union executive had recommended acceptance of the package in the knowledge that this would allow the disciplinary proceedings to go ahead. But the National Union of

Students was split on the question. Opponents at Warwick claimed that the package would diminish union autonomy and also objected to the acceptance of the disciplinary charges. The decision means that the university's plans to withhold the £30,000 is certain to be confirmed at a meeting of the university council on January 30.

The NUS and the Warwick union are seeking legal advice and many press for action against the university. But Warwick's spokeswoman, Ms Gwyneth Rigby said the university was within its rights in withholding funding.

However, the students are hoping the dispute will be settled out of court because "we would rather set a political precedent than a legal one."

MoD spends half Whitehall research budget

by Jon Turney
Science Correspondent

Universities account for a mere 1.5 per cent of the £2 billion the Government spends on research and development outside the research council and University Grants Committee budgets.

The figures can now be quoted with confidence thanks to the first Annual Review of Government Funded R&D produced by staff working under the Cabinet Office chief scientist, Dr Robin Nicholson.

The review is intended to provide a common basis for comparing research spending across Government departments, for assessing priorities. It also shows that the proportion of the total spent by the Ministry of Defence is rising: it now stands at 49.9 per cent.

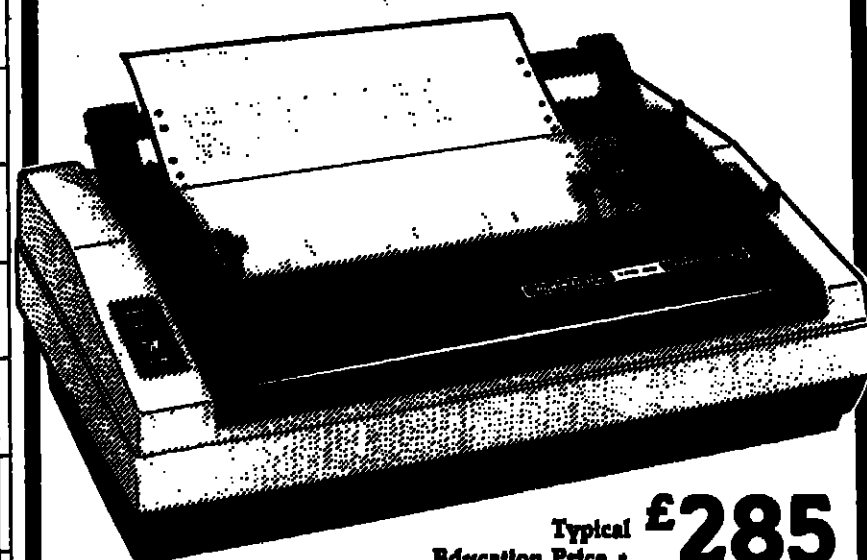
The total Government expenditure for R&D in 1981/82 of £5,380m includes the £39m spent on direct support by the five research councils and £494.7m estimated by the UGC as the universities' contribution to research. This last figure is higher than earlier estimates and will look more closely at how to secure the UGC's support for R&D in future years.

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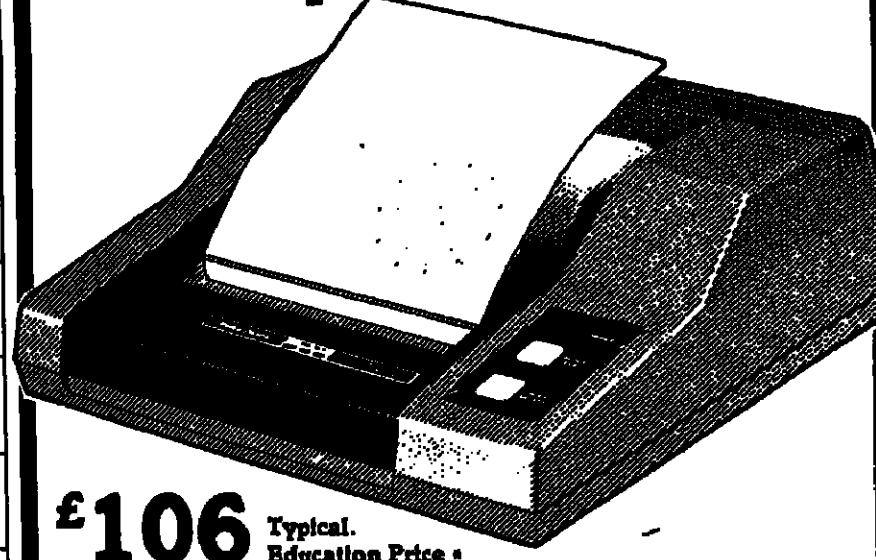
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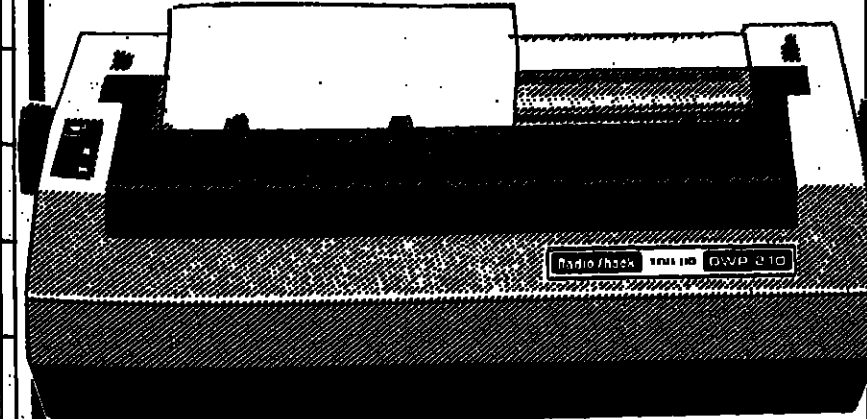
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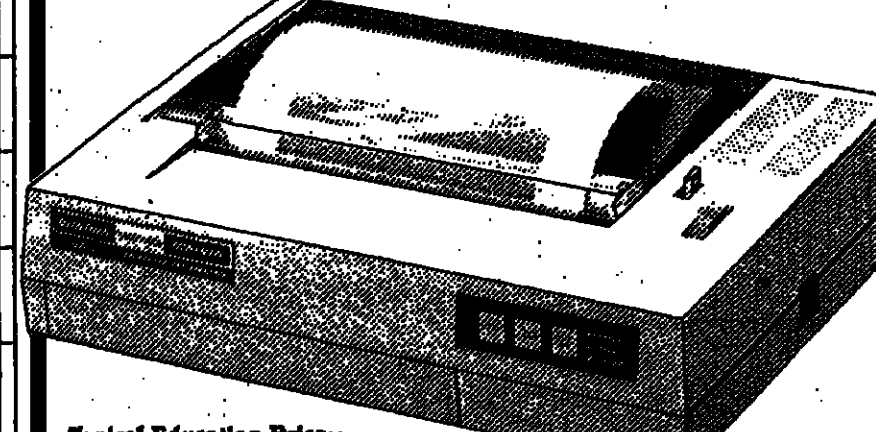
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Aiding the empire to strike back

"A revolution in Scottish further education" was the response given by Scotland's largest local education authority to the Scottish Education Department's 16-18 action plan. The action plan intends to sweep aside the existing array of certificates designed by three main validating bodies operating in Scotland and replace them with a new standard national certificate of non-advanced further education.

To date, the student movement has given a tentative welcome to the plan. We believe the intended standardization will demystify the system in the eyes of consumers and potential consumers. The modular structure of the new certificate offers the potential of greater student control over course content and structure. The modular design should also assist those wishing to study part-time.

We welcome this response from the education service in Scotland to an area of concern that is increasingly passing into the hands of the Manpower Services Commission. With the Youth Training Scheme in operation and the Technical and Vocational Education Initiative threatening to creep north across the border, it is easy to understand why the SED's call to action has been portrayed as the *Empire Strikes Back*. If the SED can succeed in its stated aim of ensuring that modular will be available to young people on the Youth Training Scheme, then it will have added some purpose to the scheme by building a bridge between training and the possibility of further study.

While we believe the action plan offers much that is positive, we continue to have our fears. We do not oppose the intention to involve schools as well as colleges in providing modules for the new certificate. We are concerned, however, that there may be a danger that schools which currently have small classes of pupils following the Higher grade leaving certificate may be transformed and emerge from a process of rationalization as junior secondary schools running exclusively vocational courses.

If the action plan is to succeed then it must receive the resources needed to make it work and to allow for staff training.

The current system of student financial support in Scottish further education is anomalous to say the least and is badly in need of reform. This is agreed by the majority of local education authorities, the Convention of Scottish Local Authorities and the Scottish Further Education Principals.

Two other clouds also threaten to darken the possibilities of the action plan. Our experiences of privatization of off-the-job training in the Youth Training Scheme leads us to be concerned that ministers may insist on the modular packages being made available to private training concerns seeking to undercut the service.

Our second concern is that the action plan does not provide a sufficiently comprehensive review of 16-18 provision.

In the action plan, the SED has set itself an ambitious target. It is now unlikely that there will be a full introduction of the plan by its original August 1984 deadline.

Deadlines, however, are not the major danger. The progressive possibilities of the action plan could founder on the rocks of privatization and public expenditure cuts. We wish it fair passage.

Bob McLean

The author is chairperson of the National Union of Students of Scotland.

Librarians oppose sale of valuables

by David Jobbins

University librarians have declared firm opposition to the sale of valuable library possessions in the face of budgetary shortfalls.

A policy document on sales of library materials drawn up by librarians who belong to the Association of University Teachers has been strengthened to make the union's opposition more explicit.

Representatives of library staff from most of Britain's universities met in London last week and amended a draft

policy to meet demands for a tougher line and went on to ratify the document. It was drawn up in the wake of the controversy at Glasgow University in 1982 over the proposed sale for around £70,000 of a collection of photographs valued at some £200,000.

Although this plan now appears to be shelved, librarians are anxious that other universities might also sell off important possessions to enable more current material to be purchased.

Apart from the sale of exact duplicates they find it difficult to conceive of disposal being desirable even when

libraries are faced with a shortfall. The policy adopted says that other avenues except redundancies should be explored before university libraries choose this undesirable path.

"Especially in the humanities the accumulated intellectual wealth of the library constitutes one of the university's major resources," it claims. Sale could also be a breach of faith if not at the express stipulation of benefactors or sellers who had permitted purchase at a nominal or reduced cost.

Patterns of future research could not be predicted and even seemingly

irrelevant material might be of future value. Acquisitions policies could be undermined by sale of valuable material which had been central feature of the collection. Scholars and research students may well have based their research on the presence of the materials considered for sale.

On occasions, when despite all the considerations a sale is agreed, the AUT is adamant that proceeds should go to the library rather than to the university's general budget. And the union is anxious that material may be sold to private collectors or even overseas, when access for scholars would be even more seriously hindered.

Even if the sale is to a public institution in the UK, the material should be copied beforehand, the AUT recommends.

Some delegates were concerned that by adopting a policy the AUT might be seen to be endorsing sales. Mr John Bennett, from Warwick University, told the meeting: "If we say we are prepared to sell library materials to save our jobs we are saying the main purpose of libraries is to employ librarians. If we do say this we increase the likelihood of redundancies - the only reason for our employment is the existence of resources we may be allowing to go for sale."

The AUT's library staff committee is to draw up a new policy on how on-line computer searching in university libraries should be funded.

Redeployment code drawn up

A code of practice on redeployment of university staff was being finalized yesterday by leaders of the Association of University Teachers.

It insists on union negotiations before staff are redeployed and also on retraining for the area to which the person is being shifted. At least one year's retraining is envisaged, but it will be as long as is required to meet the needs of the job and to obtain appropriate qualifications.

Redeployment has always been regarded by AUT leaders as preferable to redundancy, and the code of practice will provide a weapon for local union negotiators in obtaining the best possible conditions.

Librarians who belong to the AUT last week expressed total opposition to

redeployment of academics into senior library posts unless they had received appropriate training and obtained the relevant qualifications.

The AUT's national executive had initially opposed this hard line attitude, arguing that it reduced flexibility and made the possibility of compulsory redundancies more likely in other areas. But in December the AUT's council sided with the librarians, and noted with concern a trend towards redeployment of academics without professional library qualifications.

"Redeployment should be subject to trade union negotiation and to the redeployed staff achieving appropriate levels of qualification and experience," the council agreed. AUT leaders have now conceded the point.

Yesterday's meeting of the AUT's conditions of service committee was also due to consider a policy statement on changes in copyright law.

It was accepted that doing so involved steering a delicate course between the interests of two groups of the authors, many of them academics, and their publishers who produced the material; on the other were academics and librarians who wished to copy materials within the existing "fair dealing" arrangements.

The library staff representatives last week "deprecated" proposals from the Copyright Licensing Agency that universities should have to a count for photocopying carried out legally under "fair dealing".

Government funds video teaching link

by John Turney
Science Correspondent

The Department of Trade and Industry has agreed to finance a £1m video teaching link between five London hospitals involved in the forthcoming merger between Charing Cross and Westminster medical schools. The scheme, which will be evaluated by staff from the Open University, could provide a model for technical solutions to problems posed by other college mergers in London and elsewhere.

The DTI will pay for fibre-optic links to be laid along 12 miles of tunnels owned by London Transport to demonstrate the possibilities of the new technology. The complete system, using equipment developed by Plessey, will provide two-way visual contact between teachers and students at Charing Cross, Westminster, St Stephens, West Middlesex and West London hospitals. Queen Mary's, London will be tied in via a microwave link because there are suitable cable channels.

The two schools hope to use the system at the start of the new academic year this October, and have already begun training lecturers, again with help from Open University. The schools stress that this is very much an experiment, and it will be important to assess the system's effectiveness for teaching.

Other colleges in London, where there are around half a dozen other mergers under way or being planned, are following progress on the medical schools' project with interest. Two-way video links could help overcome problems of student and staff location in multi-site institutions and cut down on "bussing" and other measures.

However, the University of London's committee on distance learning has recommended that the Charing Cross-Westminster link be the sole pilot project. The university is likely to discourage other schools from setting up similar systems before this has been evaluated.

Volunteers 'could help adult education to expand'

An increase in the provision of adult education could be possible if volunteers were used, especially in experimental work, a report by the Advisory Council for Adult and Continuing Education has suggested.

This could lead to the funding of new projects as has already happened with some English as a second language and Welsh language schemes.

Apart from support and advice for language learners, volunteers could be more involved in the management of adult education, in promoting educational guidance services and extending

Social work training under fire

Social work training courses should be tougher, according to a national opinion survey of social workers who completed their training in 1980.

Almost 60 per cent of those surveyed said more students should be failed in their social work training had given them good preparation for practice. They also agreed that the training was too good preparation for practice. The report, which asks whether this year's estimated £60m bill for students undertaking the Certificate of Qualification for Social Workers (COSW) is justified, is published in the magazine, *Social Work Today*.

It details the findings of a study carried out last year by Martin Davies, professor of social work at the University of East Anglia.

About 150 social workers were surveyed, to examine recent allegations that "incompetent" practitioners have been seeping into the profession.

Professor Davies says there is evidence to support this, but not, as alleged, at the "immature graduate" end of the scale. Instead, it is among those who have switched careers in middle age.

His report claims some responsibility for the problems lies with social work training - and for future improvement - must fall on the Central Council for Education and Training of Social Workers (CCETSW), which administers the COSW courses.

He says teaching institutions have not been compelled by the CCETSW to make "adequate specialist provision to maintain minimal standards of professional training."

In the survey, 46 per cent of respondents said there was at least one student in their year who had been awarded a graduate or non-graduate qualification despite a general feeling that he or she was an incompetent practitioner.

When asked what single improvement to the course they would most like to see, almost everyone said training should be more practical.

Although they wanted training to remain within the mainstream of higher education, they were almost unanimous in demanding more teaching input by practising social workers.

Specific criticisms were made of teaching, which some said was absent altogether. Only 60 per cent said they felt well-prepared to identify child abuse risk cases, and few felt they had received adequate tuition in welfare rights.

The CCETSW is still deciding whether it will reply formally to the Davies report. An official said that social work education was "difficult and contentious" and was "under constant scrutiny." The council did not accept allegations about the work of the CCETSW.

SERC should have done more, Kingman admits

by Ngalo Crequer
and Jon Turney

The Science and Engineering Research Council has not done enough to protect university research as the strains on the science budget have increased. This unexpected admission came this week from the council's chairman, Professor John Kingman, who maintained that the British research system was a good one, which could be run well with a little more money.

Without it, it would suffer irreparable damage, he believed. Professor Kingman was speaking at a seminar on the effect of the cuts on science, organized by the Association of British Science Writers.

He stressed that the near-level funding for science had been offset by rising costs and the need to back new areas. This meant that new capital investments tended to squeeze university support. There were three ways to try

and prevent this - to get the capital projects finished quickly, to promote international collaboration and, on the applied side, to look for cooperation with industry.

While all three had been tried, the level of grant applications from university groups being approved was still ominously low, he said. This presented great problems, as it was much harder to decide between the very good and the even better than between the good and the very good. But with only just over half of the applications in the top grade now being funded, the SERC had to decide how to fund the right half.

Dr John Burnett, principal of Edinburgh University warned that the cuts might result in mediocre and less demanding research with concentration on "safe" subjects. He said either British research would decline, or funding would need to increase to counter a decade of under-funding.

Two more institutions face redundancies

by Karen Gold

Two more institutions were facing job losses this week as governors tried to compensate for cuts in local and central government funding.

Middlesex Polytechnic is proposing to close one of its major sites as well as cutting 25 posts, in order to save almost £1m.

The joint education committee of the three education authorities involved in the polytechnic - Enfield, Haringey and Barnet - met today to consider the Middlesex governing body's proposal to close the Enfield site.

The Enfield site at present houses all the polytechnic's social science work, including geography, and civil engineering. Under the proposals it would have to be closed by spring next year.

But staff at the polytechnic, who say considerable amounts of money have been spent on the Enfield site recently to develop the library and geography laboratory, fear that there is not enough teaching or library space on other sites.

Losing the site is expected to save the polytechnic about £500,000 while it is proposed that posts should go from courses where staff/student ratios are above norms set by the National Advisory Body. Dr Ray Rickett, the director, said that he hoped all staff would go by voluntary means.

More than 40 jobs - almost a quarter of the total staff at West London

Institute of Higher Education in Hounslow are likely to be lost following a £600,000 drop in funding from local and central government.

The voluntary college has proposed 41 full-time equivalent staff redundancies to meet cuts in central funding from the advanced further education pool and from Hounslow Borough Council for non-advanced work.

According to the National Association of Teachers in Further and Higher Education, the college had lost 43 staff in the last two years by voluntary means. Around 160 were still in post and it would be very unlikely many more voluntary arrangements could be made. The Nafte would oppose any compulsory redundancies.

Courses that may be closed at the college, where student numbers were planned to increase about 200 in 2,233 full-time equivalents in 1983/84, include mathematics, biology and educational studies.

Members of the Nafte at North East London Polytechnic this week were lobbying the polytechnic's governors against the director's proposals for 115 redundancies, at least some of them compulsory. A national Nafte delegation was also expected to hold talks with the joint local authority education committee when it met today.

The Barking branch of the Nafte at the NELS voted this week to call for national backing in any action, including strike action if necessary.

Left-wing NUS election ambitions are thwarted

Attempts by extreme left-wingers to seek an absolute majority for Labour students on the executive of the National Union of Students to be elected at Easter were defeated at the weekend.

Instead the National Organization of Labour Students decided to run enough candidates to give it a maximum of nine of possibly 10 seats on the 19-seat executive.

And they adopted Mr Phil Woolas, this year's treasurer, as NOLS candidate to try to replace Mr Neil Stewart who stands down as president this year after holding the office for NOLS for two years. Mr Woolas defeated Mr Tommy Sheppard, this year's education vice president, the harder line candidate.

One of Mr Woolas's main rivals was also confirmed at the weekend, The Left Alliance decided to run Ms Jane

Taylor, currently NUS national secretary, for the office, while a third contender, Ms Sarah Veale, currently welfare vice president, unsuccessfully sought Labour students' endorsement. She will stand independently.

NOLS picked its candidates for three of the four full-time posts but has yet to decide who will run for which. The Left Alliance is to field Liberal executive member Mr John Murray for treasurer, and one of its other executive members, Mr Frank Howard for vice president, education.

Among NOLS's full-time candidates is Ms Lesley Smith, from Essex University, who was co-opted to the executive only after the Christmas conference, when she beat a Communist candidate in a straw poll to fill a vacancy. The others are Mr Steve Morgan from Wales, and Mr Jim Doran, deputy chair of NUS Scotland.

New gene group swings into action

The Genetic Manipulation Advisory Group, which regulates the conduct of academic and industrial research in genetic engineering, will be dissolved next month. Mr Peter Brooke, the junior education minister, confirmed last week that the group will be replaced by a new Advisory Committee on Genetic Manipulation run by the Health and Safety Commission.

The GMAC, now administered by the Medical Research Council on behalf of the Department of Education and Science, was set up in 1976 to ensure work using the new techniques

for recombinant DNA, the genetic material, from different species would go ahead safely. Mr Brooke said: "More recently, there has been a growing consensus of expert opinion that the physical hazards associated with genetic manipulation, though real, are less than had been feared."

The decision to set up the new committee means the Government does not accept the view of some scientists that the GMAC could simply be abolished. Scientists planning experiments will still have to notify their

work to the Health and Safety Executive.

A number of members of the GMAC are likely to serve on the new committee, although no appointments have yet been announced. However, the new group is unlikely to have any members designated to represent the public interest.

On the employers' side, the Committee of Vice Chancellors and Principals, the Research Councils and the Confederation of British Industry will be invited to nominate members. Leader, back page

news in brief

Call for statement on forecasts

Universities must agree a statement on student demand up to the end of the century, to reassure parents and to ensure sensible planning. Professor Harold Hankins, acting principal of the University of Manchester Institute of Science and Technology said this week. Major changes in the pattern of higher education were dependent on the effect of total numbers of students, and their distribution on either side of the binary line, he said.

Meanwhile Manchester Polytechnic governors have called for a new Robbins report for the 1980s: a nationwide inquiry into all areas of higher education. In a letter to Sir Keith Joseph, Secretary of State for Education and Science, the chairman of Manchester governors Mr Norman Morris says that a far wider investigation is needed than those currently undertaken by the University Grants Committee and the National Advisory Body.

Student Study

Strathclyde and Glasgow universities are collaborating on a study of school-leavers in Strathclyde Region in the hope of winning an increased student intake from the government. Both universities, over three-quarters of whose students are home-based, have complained to the University Grants Committee about the reduction of opportunities for school-leavers in the area.

Bottle banker

Coca-Cola is giving Edinburgh University's business studies department £100,000 over three years to fund a retail research foundation intended to improve education and training opportunities in grocery retailing. Edinburgh's principal, Dr John Burnett was presented with a Coca-Cola bottle bearing the message: "Return for deposit".

Popular poly

Applications to Bristol Polytechnic are 63 per cent up on this time last year, with one course - higher national diploma in tourism - already closed, and the most popular one in business, law and accountancy likely to be full by the end of this term. More than 600 rejected 1983 applications had been carried over to this year.

Therefore there is a considerable argument for YTS trainees to continue for a second year or even longer to complete what amounts to an apprenticeship. This should be judged on an assessment of progress rather than on a time serving basis and should be extended to trainees outside the areas where formal apprenticeship schemes have existed in the past," the ACC said.

The association adds that such schemes should provide each young person with the type of skills outlined in the report *Training for Skills Ownership*. In addition, successful completion in one area should be credited and registered as a module on which continued training can be based at a later stage.

"The process should resemble a series of connected ladders up which the student-trainee may climb, switching from one to another without

the best scientists and technologists?" he asked. Dr Burnett said the "new blood" posts had helped but if cuts of 1 or 2 per cent annum were made, as intimated by the Government, their beneficial effect would be offset by staff losses.

Sir Peter Swinnerton-Dyer, chairman of the University Grants Committee said research had been hit harder than teaching. It had been particularly affected by the cut-back on consumables and the maintenance of buildings.

He said one way to ameliorate the effect of the cuts was to ensure that departments were not too small, "even if this means putting pressure on neighbouring universities to produce a cooperation to which they have become wholly unaccustomed."

Sir David Phillips, chairman of the Advisory Board for the Research Councils, saw the problem from two perspectives. At Oxford University,

he felt things had got a little better over the last two years, in spite of the earlier effects of the cuts. This was because traditional patterns of spending had "begun to be addressed in a new way in some universities by research committees".

However, from the ABRC, he saw the research councils struggling to support universities and their own institutes. He argued that the Government's allocation for the science vote did not take into account the effects of UGC spending cuts on the research councils.

John Irvine and Ben Martin from the Science Policy Research Unit at Sussex insisted that there was no hard evidence that research had suffered from the cuts. Scientists naturally said it had, but unless outputs from research were analysed closely there was no way to tell if less money simply led to more efficient use of resources.



The contemporary dance programme promoted by the dance studies department at the University of Surrey opened on Monday with the solo dance programme *Shred Moves*, a mixed programme of contemporary dances created by choreographer and performer Virginia Taylor, with other works by American choreographers Dan Waggoner and Ruth Barnes.

Prior to her performance, Virginia Taylor gave a series of choreographic workshops at the university. This course, which started in October 1983, will be followed in October 1984 with the introduction of an international BA(Hons) Dance in Society.

Youth training should be extended to 'apprenticeship'

by Patricia Santinelli

A call for the Youth Training Scheme to be extended to two years or even longer has come from the Association of County Councils in its evidence to the House of Lords EEC Committee this week.

The ACC told the committee looking at the vocational education of young people in the EEC that the education service would undoubtedly accept ex-YTS trainees on to further education courses, but this would create problems for them because of the current disparities in financial support.

Therefore there is a considerable argument for YTS trainees to continue for a second year or even longer to complete what amounts to an apprenticeship. This should be judged on an assessment of progress rather than on a time serving basis and should be extended to trainees outside the areas where formal apprenticeship schemes have existed in the past," the ACC said.

The association adds that such schemes should provide each young person with the type of skills outlined in the report *Training for Skills Ownership*. In addition, successful completion in one area should be credited and registered as a module on which continued training can be based at a later stage.

"The process should resemble a series of connected ladders up which the student-trainee may climb, switching from one to another without

losing height, and moving at the pace most suited to their circumstances," the ACC says.

It points that it may not be practicable to have a single certificate, but that it should be possible for young people from the age of 16, say, to be provided with a personal record folder which they could retain. This would contain appropriate certification from their school courses and from subsequent studies.

The ACC also took the opportunity to repeat its call for action in two areas. One is the need for an integrated system of vocational educational and training with responsibility at Government level lying within one department.

The other is the need for a full scale review by Government leading to a rationalization of provision, including systems for student support for young people over school leaving age.

"The association also reiterated the need for a review of the whole statutory framework and legal basis for further education, pointing out that given statutory responsibility and the resources, local education authorities could be relied upon to provide the necessary courses."

The ACC was meeting the Manpower Services Commission this week to undertake preliminary negotiations on the future rate of fees for the Youth Training Schemes and Training Opportunities Programme courses, prior to official talks with the CBI.

overseas news

Turks to look at reform proposals

from Bernard Kennedy
ANKARA

The new Turkish parliament is to consider proposals for a major reform of the Higher Education Council, the all-powerful body set up by the military administration in 1981. The idea comes from the main opposition party, the Popular Party, but it is expected to have the support of back-benchers from the other two parliamentary parties as well.

The HEC has faced a constant stream of criticism over the last couple of years, and not a few academics have resigned rather than submit themselves to its centralized control. The council's control over appointments, its application of the "rotation" system under which lecturers may be obliged to work for a period in one of the smaller or newer universities - and the quantity of new regulations it has produced in connection with everything from mounties to examinations have been among the main targets of this criticism.

The Popular Party's proposals would limit the powers of the HEC considerably. Top university appointments would be decided with the help of internal elections, while the council's powers as regards the rotation system would be handed over to the more democratic inter-university board, currently an inferior organization. The powers of university senates would be increased and the current ban on students and teaching staff joining political parties, which was introduced at the same time as the HEC, would be done away with.

Harvard research award investigated by agency

from E. Patrick McQuaid
CAMBRIDGE

The General Accounting Office in Washington, a research agency known for its investigative and often critical reports to the Congress on waste and cost-effectiveness in government contracts, is looking into a \$7.7m award to Harvard University which a competing school says it should receive.

The official inquiry was initiated at the request of House member Ted Weiss, a New York Democrat, on behalf of the Bank Street College of Education. Administrators at the Manhattan-based school claim that the National Institute of Education violated federal contract regulations when it rejected Bank Street's bid for the project.

The money is to fund a multi-year study of new classroom technologies, mainly computers. The institute is the research arm of the Department of Education. Bank Street contends that

it could do the same job Harvard's Graduate School of Education will do, but for only \$4.5m.

Mr Manuel Jusz, director of the National Institute of Education, earlier defended his decision, noting that the Harvard proposal would involve several municipalities and school districts and was worth the additional money. Bank Street, however, argues that a peer review panel had advised the institute that the New York college had submitted the best bid.

Representative Weiss chairs the inter-governmental relations and human resources subcommittee for the House committee on government operations. A Congressional aide said that Mr Weiss' panel was investigating the award in tandem with the General Accounting Office.

The institute wants to establish a national centre for the development and assessment of new educational technologies.

Australian students split

Students in West Australian tertiary campuses have been disfranchised by the Australian Union of Students after a dispute over payment of union dues.

Students in Western Australia were banned from paying fees to the AUS

by the former Liberal government.

With the election of a Labour government in Western Australia last year, the legislation was repealed. But the students do not believe they should have to pay back the money.

Tamils continue to demand entry

from D.B. Udalgama
COLOMBO

Only new entrants to Sri Lankan universities will lose their right to admission if they fail to keep to the registration deadline, according to the University Grants Committee.

Dr S.F. Kaplage, its chairman, clarified its statement on the deadline. He said it was absurd to assume that second, third and fourth year student vacancies could be replaced with other students.

The latter category are the so-called "displaced" Tamil undergraduates who fled the southern universities during the anti-Tamil riots of July-August last year. They have refused to return to school. Some 50 of them are currently on a fast, demanding admission to the University of Jaffna or the

University College of Batticaloa.

Dr Kalpage said that this could not be done. Were they asking the UGC to create faculties in Jaffna and Batticaloa overnight to accommodate "displaced" Tamil students? This would mean that the universities in the south ran under capacity, depriving others clamouring for places, he said.

The three faculties in Jaffna (medicine, science and arts) could not accommodate the extra number of the "displaced" and the University College of Batticaloa only has faculties in science and agriculture.

Dr Kalpage said that the number of "displaced" students was 1,829 and that most Tamil final year medicine and engineering students had returned to the southern universities. Nearly all Tamil law students had reported in Colombo.

Meanwhile, the Tamil United Liberation Front has told the UGC that the state government of Tamil Nadu and all the engineering colleges there are prepared to offer substantial help to organize the engineering faculty at Jaffna University. It urges the UGC to pursue the matter and without delay.

The TULF has asked that as many Tamil entrants and displaced undergraduates as possible should be the thorniest issue in German higher education for several years: apart from siring a dispute among leading academics, it has provoked a heated public debate, fierce political opposition and provoked a rift within Herr Genscher's own liberal party (FDP).

This was the last thing Herr Genscher had in mind when he chose private education as a motto for two major election campaigns crucial for the survival of his ruling party. If Germany was to defend its leading position as an industrial and exporting nation, he said, it needed "private elite universities" as existed in the United States, Britain and France. Such universities, particularly important in the fields of micro and optoelectronics and biotechnology, would help create healthy competition for the state universities and keep Germany abreast of international research, he stressed.

The debate on the minister's proposals had only begun to simmer when it became known that an elite management school would open in Koblenz before the end of the year. The organizers - the local chamber of industry and commerce (IHK) and a business school teacher - said they had

Student funds unaffected by coup

The Nigerian military coup seems not to have revived problems over the flow of funds to Nigerian students at overseas universities and colleges, as many feared.

Local authorities in England are being warned by their associations that the coup may result in new difficulties in getting foreign exchange out of Nigeria. But aid agencies which have been in touch with the Nigerian high commission in London and with banks who normally handle students' foreign exchange have been assured that the situation remains unchanged.

The new regime has not yet announced any changes in controls on student foreign exchange and the banks are continuing to operate existing guidelines. But they are likely to be cautious about tackling problem cases according to the UK Council on Overseas Student Affairs.

A UKCOSA official said: "We have had more calls from advisers anticipating problems than from students in difficulty. We are telling advisers the situation is unclear and that students should wait to see what happens. It could be there is no announcement of an embargo on foreign exchange."

UKCOSA has been reminding advisers of the short term aid available for destitute students from the Department of Health and Social Security. Hundreds of Nigerian students have been experiencing serious difficulties in obtaining money to pay fees and meet maintenance costs prior to the coup.

A group of Nigerian students in the United States found their own way round any problems with exchange controls - and were arrested as a result.

Students at colleges in Oklahoma and neighbouring states have been charged with running a "substantial and extensive" fraudulent credit card operation.

Five students at Langston University were arrested after false numbers had been used to make a number of big purchases. They are also said to have applied for credit cards in the names of doctors, dentists and college professors.

Athletes are 'only brawn not brains'

A state senator from Nebraska, whose football team was expected to be ranked the number one in the nation in collegiate athletics, is advocating that college athletes be considered employees, paid for their services, and not required to enrol or meet any student obligations.

Mr Ernest Chambers has introduced such legislation in his home state (he is a local senator and not a member of Congress) and aired his views on a recent morning television programme, syndicated nationally.

Mr Chambers said it was a fantasy to continue pretending that big-time athletes are being educated. He contends that many athletes, particularly in football and basketball, are recruited by major colleges and universities solely to bring in more money to the institution, and so should receive a fee for services.

The studio audience disagreed and hissed at his comments several times. Also participating in the programme were the president of the National Collegiate Athletics Association, Mr



John Toner, and the football coach at the University of Michigan, Mr G.E. "Bo" Schembechler. Both men took issue with the senator's proposal.

"This evil," said coach Schembechler, "big-time football, has generated enough revenue to give scholarships to men and women in all sports. It's how we use the money that's important, as well as the positive effect that the experience has had on those who played."

Loan frauds mount up

from E. Patrick McQuaid
CAMBRIDGE

A sweeping investigation has determined that dereliction and deceit in the management of the United States student loans programme, a variety of construction projects, and the entitlement programme for disadvantaged students has cost the government \$42m.

The Department of Education's office of the Inspector General obtained 105 indictments and 59 convictions for criminal wrongdoing involving federal education funds. The inquiry covered only the period from April to September 30 last year.

In the area of student loans, 53 aliens were indicted on charges of fraudulently obtaining aid through the Guaranteed Student Loan programme

and 25 Americans were indicted on similar charges at four targeted colleges.

Inadequate internal controls were cited in the audit as responsible for overpayments in the loans programme of more than \$31m and an additional \$1.1m in extra interest costs. About \$5.8m has already been returned, the Government said.

The agency further recommended that \$3.5m in student aid costs should be returned and questioned another \$7m. It has asked some contractors and award recipients to return about \$14m in unsupported costs for a variety of projects and questioned another \$28m.

In a separate investigation, the agency questioned the entire federal appropriations to one unnamed state government between 1977 and 1980.

contend that the future of scholarship itself is at jeopardy.

"As an orthodox Christian," said Yale's Jaroslav Pelikan, "I am obliged to believe that the meek shall inherit the earth, but I refuse to accept in interpretation that such a drop-off in intellectual quality is what the prophecy of the Sermon on the Mount was intended to be."

While not apologizing, Mr Pelikan called into question the wisdom of graduate deans such as himself who 10 years ago warned potential applicants about the realities of the outlook for academic employment. "I do wonder about the effects of what we did," he told executives at a conference sponsored by the Carnegie Foundation for the Advancement of Teaching.

"There is, for one thing, a notorious lag between diagnosis and prescription as well as between prescription and result.

overseas news

Private university 'determined to be a thorn in academic flesh'

from Barbara von Ow
MUNICH

Organizers of West Germany's first private management school announced earlier this month are determined to be a thorn in the flesh of German Universities.

Private education, a subject of some controversy since foreign minister Hans Dietrich Genscher backed it publicly last month, has proved to be the thorniest issue in German higher education for several years: apart from siring a dispute among leading academics, it has provoked a heated public debate, fierce political opposition and provoked a rift within Herr Genscher's own liberal party (FDP).

This was the last thing Herr Genscher had in mind when he chose private education as a motto for two major election campaigns crucial for the survival of his ruling party. If Germany was to defend its leading position as an industrial and exporting nation, he said, it needed "private elite universities" as existed in the United States, Britain and France. Such universities, particularly important in the fields of micro and optoelectronics and biotechnology, would help create healthy competition for the state universities and keep Germany abreast of international research, he stressed.

The debate on the minister's proposals had only begun to simmer when it became known that an elite management school would open in Koblenz before the end of the year. The organizers - the local chamber of industry and commerce (IHK) and a business school teacher - said they had

Elite school causes a political rift

already collected DM6m in private funds. Two million more were needed for the university to open with a to 60 students over the wisdom of such tactics. There were no injuries during the capacity of 350 students they hoped to dispose of up to DM25m. Karl Darscheid, IHK general manager said. "We want no money from the state, even if it was offered to us we wouldn't take it". Instead students will have to pay fees of around DM4000 a semester, although scholarship and credit schemes are planned.

Degree courses will include a year abroad between a basic and a main course in Koblenz of three semesters each. Students will be trained as top specialists with a good general knowledge, Professor Udo Glittenberg from the European Business School underlined. The ultimate aim was to fuel competition and innovation at German universities, he added.

The culture minister of the Rhine Palatinate, Georg Goeltzer, while pointing to possible hurdles for official recognition, has made no secret of his sympathy for the project. In a statement he said the establishment of a private management university was "basically desirable" and could be an "attractive enrichment" for German higher education. It would offer young people an interesting range of com-

plementary subjects and help boost the competitiveness of German industry. Despite the public controversy, the minister is expected to give his go-ahead (which is dependent on the academic quality and financial security of the project) shortly.

However, not all culture ministers agree with Herr Goeltzer. Hans Maier, culture minister of conservative Bavaria for over 13 years, rejected the idea outright, saying every existing university could have its own elite if students were chosen according to his motto "admission for all through academic achievement".

Even education minister Dorothee Wilms expressed reserve and the president of the rectors' conference, Theodor Berchem, warned that it was "extremely dangerous to equate 'private' with excellence and state-run with mediocrity." And in a critical editorial, the president of Hohenheim University, George Turner, accused Genscher of "irresponsible superficiality". Initially fascinating, the minister's idea ended up creating confusion, "just like a shooting star of little substance," he wrote.

While many academics appeared to perceive private universities as a vote of no confidence in the state institutions, the public media, in long front-page editorials, reacted more positively.

Irish students in card protest

Eggs and other small objects were thrown at the Irish prime minister Dr Garret Fitzgerald when he visited Trinity College Dublin for a debate last week.

It was the first serious student protest for years and arose over the government's decision to withdraw medical cards from about two thirds of the country's students.

Until now, full-time students over the age of 16 were automatically entitled to medical cards which gave them free access to doctors, hospitals, medicine and other services.

But in an effort to save public money, the government has decided that cards will only be given to students on the basis of their parents' income. It is thought that about 80,000 students in second and third level institutions will have their cards withdrawn.

The Union of Students in Ireland (USI) is trying to use the issue as well as education cuts to mobilize students in all higher education colleges. Fourteen student leaders have already been charged in the courts with occupying the office of the minister for health and further protest marches and occupations are planned.

However, the egg-throwing incidents at Trinity College have split students over the wisdom of such tactics. There were no injuries during the protest but it was virtually impossible to hear the invited speakers at the debate on European unity who included the British MP Mr Conor Moynihan.

One speaker, Lord Henry Mountcharles, a potential government candidate for the European Parliament



Dr Garret Fitzgerald: eggs were thrown

elections had egg splattered over his clothes. The noisy protests so infuriated the fourth speaker, historian Professor John A. Murphy that he verbally abused the "subsidized brats".

At one stage the president of USI, Mr Joe Duffy was dragged from the hall. Ironically, it was Mr Duffy who some months ago was personally invited by Dr Fitzgerald to join a new government national youth policy committee.

Public annoyance over the protest has probably deflected attention from the real issue of the withdrawal of the medical cards. Before it took place, the Irish Student Health Officers' Association had challenged the government's claim that it would save IR£2.5m. The association pointed out that students used the scheme far less often than other medical card holders.

Shanghai graduates stage jobs mutiny

from Jane Marshall
PEKING

Mutinous graduates in Shanghai are refusing to accept the jobs to which the state has assigned them, and others have failed to turn up at their new work units.

According to the official Communist Party newspaper, the *People's Daily*, six university graduates have had their rights for job assignment revoked - tantamount to annulment of their graduate status - after their refusal to accept specific posts.

University graduates in China are not free to find their own employment, but are expected to take whatever jobs the state assigns them. This policy is particularly unpopular with young

people from the towns - where those most likely to enter higher education are from - who often find themselves sent to the countryside to develop economic backward regions when they would prefer to stay at home.

The tiny proportion of Chinese who make it to university tend to be from privileged families, and the authorities have issued several stern circulars in recent years aimed especially at high-ranking officials who use their influence or bribery to secure for their children jobs which are prestigious or are at any rate in their home towns.

The *People's Daily* cites the cases of the six as a warning to the cases of 50,000 who have so far failed to check in to their assigned units following graduation last year.

In other cases reported by *Libération Daily*, graduates from Shanghai training colleges have refused to work as middle school teachers when given the jobs. The paper does not say how many such cases there are, but mentions that of 20 graduates allocated to a district education office, more than half turned down the posts.

It does not entirely blame the graduates, however, but criticizes the authorities for enrolling students to the "teachers' colleges" against their will. It claims the colleges do not always give adequate emphasis to basic subjects such as education and educational psychology, and that they neglect teaching practice.

tively. The conservative daily *Frankfurter Allgemeine Zeitung*, in an editorial entitled "We need elites" pointed to Germany's deficit in Nobel prizes patents and scientific breakthroughs. As a result of past educational policies, Germany now had "mass universities where democracy means egalitarianism and where elite is a banned word".

The liberal weekly newspaper *Die Zeit* welcomed the idea as a "meaningful step in the right direction". Elite, not as a privilege of birth, money or power, but as "the old idea of European culture", was "not only unsuspicious but highly desirable", it noted.

But the fiercest attack came from within the liberal party itself: Frau Hildegard Hamm-Bruecher, a bundestag deputy and educational expert, attacked Genscher for having adopted an "ethos liberalism" in educational policies which was opposed by the majority of his party. The opening of higher education for everyone, one of the greatest achievements of liberal politics during the past 20 years, could not be threatened by "artificially imposed and almost feudal institution", she said.

The party's educational spokesman stepped in to smooth the differences, noting that "the liberal concept of education includes the civil right for education as well as the promotion of special talent". Genscher, seeing that his election slogan had backfired disastrously, has written to all party members, explaining the elite universities had to be open for "all layers of the population".

The association is firmly convinced that maintaining a liberal attitude to the entry of overseas students should be a significant cornerstone of New Zealand's foreign aid policy. We regard an enlightened policy towards overseas students as having obvious benefits in terms of future relations with other countries. By way of example, the present Malaysian Cabinet contains no fewer than four New Zealand graduates. It is a matter of grave concern to the association that the number of overseas students coming to New Zealand has steadily declined since peaking in 1976.

Decision upholds seven year rule

from E. Patrick McQuaid

CAMBRIDGE, MASS Foreign students who outstay their welcome in the United States will be hit by a Supreme Court decision to uphold a 1952 ruling that an alien must prove seven years of "continuous physical presence" to qualify for a suspension of deportation.

Justice Sandra Day O'Connor ruled that the requirement set by the Immigration and Nationality Act "was no simple accident of draftsmanship. Congress designs the immigration laws, and it is up to Congress to temper the laws' rigidity if it so desires."

The decision means that Ms Padungari Phinpathya, a non-immigrant alien, will soon be returning to her native Thailand.

While only six justices agreed in full with the ruling there was no written dissent. The decision overturns a 1982 lower federal court that granted Ms Phinpathya an exception to the rule because she visited her ailing mother for three months in 1974 with every intention of returning.

Justice O'Connor wrote that the lower court's decision would ultimately eliminate the continuous presence requirement. There are roughly 333,000 foreign students now enrolled at US institutions who may remain in the States for as long as they continue, full-time degree activity.

The 1952 law provides that deportation may be blocked in the case of an alien of good moral character who would suffer "extreme hardships" if deported and meets the continuous presence requirement.

The National Association of Foreign Student Affairs, a membership agency advising foreign student counsellors, predicts that the ruling will have only a slight effect for most aliens.

A proposed Immigration Reform Bill would grant amnesty to aliens who have resided in the States since 1981. Of the estimated six million illegal aliens now in the country, about 38 per cent would qualify for amnesty, according to the Department of Justice.

The National Bipartisan Commission on Central America, chaired by Mr Henry Kissinger, has advised the president to establish 10,000 scholarships for Latin American students to attend US institutions. It also urged the Peace Corps to launch and maintain a Literacy Corps and send educational volunteers into the Latin country, side.



New Zealand learns from Mr Pym

Since 1979 when the New Zealand government introduced a NZ\$1,500 fee for overseas students from outside the South Pacific Forum countries, the Association of University Teachers of New Zealand has been at pains to establish what government policy is with respect to overseas students.

It has been somewhat interesting to observe from the other side of the world, the changes in the British Conservative government's policy in the past two years. The association concurs with the areas of self-interest identified in the report of the Overseas Students Trust and is encouraged by Mr Pym's statement that the Government was "convinced that it is in the national interest, both in the short term and in the longer term, to provide more help to enable overseas students to come to this country for their further and higher education".

The association is firmly convinced that maintaining a liberal attitude to the entry of overseas students should be a significant cornerstone of New Zealand's foreign aid policy. We regard an enlightened policy towards overseas students as having obvious benefits in terms of future relations with other countries. By way of example, the present Malaysian Cabinet contains no fewer than four New Zealand graduates. It is a matter of grave concern to the association that the number of overseas students coming to New Zealand has steadily declined since peaking in 1976.

Since the introduction of the \$1,500 fee, the Government has introduced quotas for certain categories of overseas students and lightened the regulations covering both the entry of postgraduate students and the criteria for overseas students already in New Zealand to study for a postgraduate qualification. The association has maintained a steady correspondence with the ministers of education, foreign affairs and immigration yet despite assurances that the Government recognizes the value of providing access to New Zealand's educational institutions we have witnessed the development of a marketplace approach to overseas students.

Last September, the Minister of foreign affairs released details of the proposed changes. An annual quota of 375 students from the South Pacific will be admitted free, South East Asian students will continue to pay \$1,500 and be subject to quotas. Students from other countries may now be admitted on a cost-recovery basis. Students are not to be admitted to medicine, dentistry or veterinary science.

The minister states that the policy is designed "to strengthen relationships with those countries with which we have developing or traditional interests by providing educational links with present or future business, professional and political leaders while at the same time using surplus capacity on a user pays basis".

The association remains somewhat cynical about the value of these proposals. The charges bear no relationship to the marginal cost of educating such students. The New Zealand University Students' Association is in the process of taking a submission to Unesco on the grounds that such fees are discriminatory.

Rob Crozier

The author is executive secretary of the Association of University Teachers New Zealand.

Good housekeeping

The self-sacrifice of a few individuals, the enterprise of others, and a University Grants Committee windfall, have characterized Lancaster University's determined journey through the cuts.

Though in 1981 it received an average cut of about 17 per cent there was never any possibility of being able to solve financial problems by seeing a huge exodus of staff; they were not old enough. As one lecturer put it: "We are all 42".

One slight advantage was that 26 posts had been frozen since 1979. Since 1981 25 academics have taken early retirement under the University Grants Committee scheme, and eight more have transferred to other universities.

Lancaster's age structure shows the imbalance the cuts have produced. The attached table shows the problem of the accumulation of 40-year old staff, and the lack of new recruits.

Professor Keith Morgan, pro vice-chancellor said: "It is a measure of our special problem that the number of early retirements has not been enough to stop the proportion of over-50s rising. What is not obvious is that a new problem will present itself to us over the next 10 years. This will be the disproportionate loss of professors. Between now and 1995, in all, 26 teaching staff will reach the normal retiring age - of these 15 are professors."

If staff losses were not going to solve Lancaster's problems, other solutions had to be found. A surprisingly large sum, between £250,000-£300,000 per annum, has been found by staff taking unpaid leave or being seconded. In most cases the staff have simply found other temporary paymasters, but in some cases, according to Mr Vernon Pratt, president of Lancaster's Association of University Teachers, they have lived off spouses, or taken a term without income, lived cheaply and written up their research.

Of substantial help was a UGC decision to increase science and engineering targets by 40 students, which added another £250,000 to the recurrent grant.

Further, the dire predictions about the decline in numbers of overseas students were not realized. Lancaster has recruited £500,000 worth more of overseas students than it expected. So currently, although one dare not shout too loudly about good housekeeping for fear of retribution, Lancaster is in surplus and buzzes with the excitement of new appointments and a new research fund.

£250,000 has been set aside for research and this will largely be used for a number of two-year short-term appointments.

Financial targets in some departments have been eased and 14% new appointments are to be made across a wide spectrum. About half will be tenured and half fixed-term. Professor Morgan said: "We could not make them all tenured because we were sure that pressure would be back on us."

One of the priorities has been to strengthen French, German and Italian to make them absolutely safe. They are now the only languages Lancaster teach apart from some "hidden" language skills in religious studies.

Early in the cuts Lancaster closed four departments and lost Russian, Czech, Serbo-Croat, Polish and Arabic. Of the 16 academic staff involved, eight went to other universities, four

Lancaster University starts 1984 with a surplus, new appointments and a special research fund. Ngaio Crequer reports

were redeployed at Lancaster, two took early retirement, one is still teaching and another is there part-time.

According to Vernon Pratt: "A number of individuals have borne the brunt of the trials of the university. Some have gone and are happy but others have had radical changes in their career forced upon them."

"Some of the people who have left were the most active researchers, not at all the dead wood. So some departments are left without academic leadership."

"The heat was really on when people were talking about 60 compulsory redundancies being necessary. The AUT line to avoid this was to go in for unpaid leave, and job-sharing so these individuals took a self-sacrificial part."

"It is a dubious thing for a trades union to do but by and large people saw it as unavoidable."

The AUT view on tenure and how to keep it, is also interesting. Senate decided that tenure should stay. "We will not make any unilateral extension of grounds for dismissal. But we did say that we must increase our vigilance re staff performance. We have not finalized the arrangements, but there will be a much more regular reporting of people's activities to departments, a more careful approach to providing support to people during their probation."

"The AUT policy on monitoring staff performance is that it is not in need of improvement, but we are keen to recognize staff accountability, providing it is done in the context of encouraging staff," said Mr Pratt.

The way staff in the economics department faced up to the cuts is an interesting example. In 1981 they had 24 full-time staff. Since then they have lost three people permanently through early retirement, two professors (out of three) and one senior lecturer.

The department got together and democratically decided voluntarily to suspend all sabbatical leave entitlement. Everyone was encouraged to go on unpaid leave, and this was the source of major savings. Through unpaid (by Lancaster) leave the department saved eight working years over two years. Some people took one or two years off, and in one case three years.

One went to York on a three-year project funded by the Department of Health and Social Security, two to Australia and New Zealand universities, one to Oxford. All were paid by their temporary employers so no personal sacrifice was made. The university

allowed the department to keep 20 per cent of the income saved, so a temporary three year appointment has been made.

Teaching loads have inevitably gone up, and the staff-student ratio has risen by between 10-15 per cent over the time. The size of weekly tutorial groups has gone up, and choice of options for students has been marginally reduced.

Professor Jim Taylor said: "Our recurrent grant has also been affected. People are asking for money to go to conferences and travel but it is not there. One chap paid £700 himself to go to a conference in the United States, which was of research interest to him. In the past we would have been able to pay for half at least."

"We have also been encouraging postgraduate students to do some Part I teaching. We have 20 tutorials in our first year alone every week, and seven or eight of these are done by postgraduates or visiting lecturers."

There have also been less visible, but just as serious, detrimental effects. "You notice that younger members of staff without tenure have obviously experienced some anxiety. Over the period they may tend to go for short snappy research that can be published quickly, rather than basic research. So they may be sacrificing the long-term value of research."

When the cuts came the history department felt vulnerable because it was a big department, 29 people, the largest single department at Lancaster and one of the largest undivided history departments in the country.

They feel they have both gained and lost by the exercise. They lost Austin Woolrych, the founding professor of history. Professor Joe Shennan said: "He only had a couple of years to go, and he felt it would be intolerable if a younger member of staff was forced to go."

So he took early retirement but still works on a part-time basis. "Another distinguished historian, Professor Geoffrey Holmes, FBA also went, though he came back part-time. He was a fellow of the British Academy. Both were a great loss."

"Both were seventeenth and eighteenth century historians, and there was the possibility of a third person, retiring for a different reason. So we suddenly had this gap. There was a danger that we would have no expertise in this area."

So far they have managed by bringing in outside help, and by colleagues covering. But, said Professor Shennan: "We are shortly going to have to look at this. We could radically alter the course. We could lengthen some courses. We could reinstate, but we are doing that already, several people this year are doing it but they are not feeling at home."

"We offer eight first year courses, of which students take two. We feel that wider choice has attracted students so we would be loath to reduce choice." Lancaster deliberately steered away from the broad survey way of doing



Lancaster: an impressive atmosphere of optimism and diligence

history, found in many civics, to a more thematically-based approach, and wants to keep it.

But the cuts have led to a very promising and lucrative new development. Steve Constantine, a lecturer in the department came up with the idea of staff producing short pamphlets in their subject area, aimed specifically at the A level market.

So far eight of the Lancaster Pamphlets have been published, such as *Social conditions in Britain, 1918-1939*, and *France before the Revolution, The Great Reform Act of 1832 and The Partition of Africa*. The titles have been out for eight months and 20,000 have been sold already.

Another 12 are in various stages of publication and the department thinks it can do about 40 to 50. Professor Shennan said: "I do not see why we cannot sell a quarter of a million."

They take about six weeks to write, they are each about 15,000 words and cost £1.50 each, published by Methuen. All the staff have agreed that all royalties go to the department as a little "nest egg".

Mr Constantine said: "There is also a professional aspect to this. The idea is that the university should service schools, with up-to-date accounts of fairly major topics. The response from teachers has been encouraging. They are also read widely by undergraduates throughout the country, although that was not the intention."

"And a spin-off we did not anticipate was that it has improved the image of Lancaster in the schools. Students coming for interview have seen the pamphlets."

The department of biological sciences is another feeling the loss of staff in crucial areas. When the professor of biochemistry went, the post was frozen, placing a great burden on other staff. Fortunately they have been able to rely on local expertise, biochemistry from a local hospital, and biology and ecology from nearby research institutions.

The department had a maximum of 24 staff in 1977. Since 1979 there have been three transfers and there will be one early retirement. So they are almost back to the number of staff they had in 1974, a boom time, when their undergraduate output was less than two thirds what it is now.

Dr John Whitaker said: "The biggest single problem is that we cannot

replace the technicians who leave. Since the late 1970s we have lost half a dozen technicians who have not been replaced. They were highly skilled and this is a labour-intensive subject. It is a serious problem."

The department has responded with vigour. Since the late 1970s, in real terms, its outside money has doubled. Its publication record shows a considerable increase in activity. Student applications have gone up by 9 per cent.

But the common complaint is one of the immense time and effort that is necessary to go out and find external funding and support, now a necessary distraction.

So Lancaster has some typical and some rather special problems but there is a very impressive atmosphere of optimism and diligence.

There has been much pain. Professor Philip Reynolds, the vice-chancellor says that the fact that Lancaster can now only offer three languages is a serious loss. The philosophy of the founders was that Lancaster should cover the whole range of knowledge.

Professor Reynolds also reacts very angrily when he sees stories in the press purporting to show how the universities would be distributed into three tiers. Lancaster is not always in everyone's top tier.

"I dislike the idea of three tiers and these things are always an inappropriate reflection of Lancaster's status. If you categorize institutions this will drastically affect the performance of people in the lower tiers. People behave the way they are expected to behave."

"Peter Swinnerton-Dyer is entirely right when he says that every university has some excellence and every university should be doing some research in some fields. There would be a very serious loss if there was a judgement made as between institutions. I do not dissent that given times of straitened resources, that you should concentrate within institutions."

Certainly Lancaster made difficult choices between departments but it has emerged strong, obviously flourishing and very confident.

The universities' strategy debate is being taken seriously and open meetings have been organized to provoke wide and serious participation in the questions. They show a remarkable unanimity of purpose.

Outdated legacy of the Raj

John O'Leary reports on the attempts to create order from the chaos of Indian higher education

Higher education is bound to mirror to some extent the society in which it is situated, so it should surprise no-one that the Indian system comprises an unwieldy mass of institutions as variable in quality as in size. Like the country itself, Indian higher education is full of contrasts, by turns outstanding and incompetent, regimented and chaotic, futuristic and antiquated, internationally-minded and parochial, idealistic and complacent or even corrupt.

It is a system which is so out of control as to hardly justify the use of the term, but which contains a number of institutions to stand comparison with any in the West and which has gone further than any other in the developing world to cater for the burgeoning demand for higher education among the masses. In India's case the masses are so large, distances so vast and educational disadvantage so endemic that even the massive expansion of opportunity which has been brought about in recent years hardly scratches the surface of the society in which the vast majority of Indians live.

As in many other walks of life, the country is left to reconcile the needs of an emerging industrial power with those of a predominantly rural, uneducated, poor population. The result is an uneasy compromise where a small number of elite institutions (most of which do not carry the title of university) coexist with a large number of others struggling for finance and accommodation to cope with the ever-increasing demand for places.

The whole business is largely unplanned, despite the best efforts of the government and of the University Grants Commission, the body which controls the government's financial commitment to higher education, which does not have to be large in any case because of the states' dominant role. Education may not be the most sought-after brief in Mrs Gandhi's cabinet, but it ranks some way above the equivalent post in Britain because of the status which education enjoys in India. It is much more usual, for example, for the wealthy to make substantial donations to higher education institutions and relatively poor families of the club together to support a student through a long period at university.

Last year, for instance, the UGC declared a freeze on the establishment of new universities, which were approaching 130 in number. By Christmas, the total had risen to 133 and there was no sign of state governments, often anxious to satisfy regional demands for purely political ends, taking any notice of the moratorium. And the number of universities is only the tip of the iceberg, since their affiliated colleges are counted in thousands.

Dr Madhuri Shah, the UGC chairman and an internationally respected figure who serves on the Commission's Standing Committee on student mobility, freely admits that standards are very widely and that her powers are extremely limited. She and her commission are still trying to devise a system of testing which will impose some uniformity, among other reforms, but she knows she is fighting a losing battle. She would like to eradicate nepotism and corruption in academic appointments, to encourage more mobility among staff, but even the UGC itself is accused of corruption.

Ideally, Dr Shah would like to follow the German example of preventing universities from appointing their own graduates to staff posts unless they had worked somewhere else first. But, as with so many apparently straightforward issues, circumstances in India do not lend themselves to the obvious decision. Academic pay is low, housing costs high and mobility traditionally limited. Consequently, lecturers tend to hold onto jobs in their hometowns and not to attempt the difficult task of breaking into unfamiliar territory until they have made a name for themselves in academic circles.

As the former vice-chancellor of India's only women's university, in Bombay, Dr Shah has made it her special mission to extend and redirect the participation of women in higher education. Although the UGC has

turned down a proposal to establish a second women's university, in Andhra Pradesh, and three more are pending, moves have been made in other areas. The number of women students has grown with the expansion of higher education generally, but Dr Shah is trying to steer them away from their traditional preserve of the humanities and certain sciences into subjects which will lead them into the professions or modern industries.

At present, an uncomfortably high proportion emerge from university destined only to exacerbate one of the problems now putting most pressure on the UGC and in turn higher education as a whole: that of graduate unemployment. Opportunities in the employment fields traditionally sought after by graduates have not kept pace with the growth in the student population and questions are being asked about the need for further expansion while an undeniably large pool of idle talent exists.

Not surprisingly, there is no shortage of openings for computer scientists or engineers in India's expanding industrial centre, but jobs are hard to come by for arts and social science graduates. The temptation, where possible, is to drift into postgraduate study and even to continue as a student after that by transferring into a subject such as medicine or law, where career prospects are still good. Postgraduate places are not sufficiently plentiful to make this a common solution to the unemployment problem, but it is a tendency which concerns both the UGC and the government.

However, Dr Shah has few complaints about the government's financial commitment to higher education, which does not have to be large in any case because of the states' dominant role. Education may not be the most sought-after brief in Mrs Gandhi's cabinet, but it ranks some way above the equivalent post in Britain because of the status which education enjoys in India. It is much more usual, for example, for the wealthy to make substantial donations to higher education institutions and relatively poor families of the club together to support a student through a long period at university.

Mrs Gandhi shows great interest in higher education

The interest Mrs Gandhi herself shows in higher education, and particularly about the government's financial commitment to higher education, which does not have to be large in any case because of the states' dominant role. Education may not be the most sought-after brief in Mrs Gandhi's cabinet, but it ranks some way above the equivalent post in Britain because of the status which education enjoys in India. It is much more usual, for example, for the wealthy to make substantial donations to higher education institutions and relatively poor families of the club together to support a student through a long period at university.

Although action may be some way behind the words, only this month Mrs Gandhi was promising to help alleviate what she described as "the many frustrations" besetting young academics, and lamenting the continuing problem of the brain drain out of the country. It is hard to see what significant progress could be made in the short run on the three main issues she identified: those of academic pay, housing and bureaucratic obstacles. Levels of pay could never match those offered in the countries which attract so many of the brightest, while housing and academic bureaucracy are not within the government's immediate control.

What Mrs Gandhi would really like is to reshape the higher education system altogether. As long ago as 1975 she wrote: "I wonder if any contemporary society is satisfied with its education system. The developing countries face special problems, however, for the colonial education systems which most of them inherited have proved totally inadequate for a developing society."



Contrasts: A woman holds her baby against a background of new buildings in Bombay

basic issues of educational reform are clouded over by a preoccupation with unemployment. The sole purpose of education is not to enable young people to get jobs, or even to know more, but to help them become better human beings, growing in awareness and compassion, so that they can grapple with the problems of today and be prepared for the challenges of tomorrow.

There is no sign of any fundamental reform, however, and any attempt to impose change would be an enormous undertaking for a government which has maintained university autonomy and encouraged constant growth within the existing system. In 15 years of Congress Party rule between 1959 and 1974, for example, spending on higher education more than doubled in real terms and the student population soared.

It is generally accepted that it would now be impossible for any party to halt the growth of higher education, no matter what doubts its leaders might have about the suitability of a system based on the traditional British honours degree. There are many even within the universities who think that spending on higher education is unjustifiably high compared with the priority area of primary education or even technical education, which is a neglected but vital sector in a country keen to speed up its industrialization. But demand for places on degree courses, whatever their quality, continues to rise as the population of India grows and more people receive the basic education which makes university a possibility.

The system which swallows them up is a giant mutation of 19th century London University. London, we are told, was the original model for the University of Calcutta in 1857, with the short run on the three main issues she identified: those of academic pay, housing and bureaucratic obstacles. Levels of pay could never match those offered in the countries which attract so many of the brightest, while housing and academic bureaucracy are not within the government's immediate control.

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so although all should have been of an acceptable quality at the start of the association, no one pretends that all are now.

Indeed, no one pretends that all the universities are of an acceptable quality. The Association of Indian Universities (which combines the functions of Britain's Committee of Vice-Chancellors and Principals and the Universities Athletic Union with some academic work) insists on carrying out an inspection before accepting new applicants into membership. It is by no means uncommon for applications to be turned down pending an improvement in staffing or facilities.

Student unrest is a fact of life in India

According to Dr Jagdish Narain, secretary of the AIU, a rejection is not necessarily unwelcome. "It enables the university to put pressure on its state government for more resources," he says. "Without our visiting parties, some universities would never get enough money to build up their libraries to employ more staff in areas where they are needed."

But it was not academic standards but discipline which dominated last month's annual residential meeting of the vice chancellors. Student unrest may have subsided in the West, but in India it is a fact of life for the universities - and a highly publicized one at that. Hardly a week goes by without prominent stories in the national press of demonstrations, sit-ins and/or closures at one or more universities.

Unrest may be provoked by individual cases of alleged victimization of a student or may be the result of a bigger dispute involving a student union, but the background is invariably political. The confrontations are

often violent, sometimes to the point of causing deaths, as in the series of clashes last year over the reservation of places for students from the caste known as the Untouchables.

A quota system operates not only in higher education but throughout the public services as positive discrimination in favour of the Untouchables. About 15 per cent of places on all courses, undergraduate and postgraduate, and even among academic staff are reserved for them. Although entry standards are lower for these groups, they must still satisfy minimum requirements at least. Since the only alternative is to leave the places vacant, there is a strong incentive to find suitable candidates.

In spite of the disturbances in Assam, the quota system appears to work well and not to be generally resented by other students. However, many academics still have doubts about awarding staff posts or places on postgraduate courses on any criterion other than strict merit.

Postgraduate places, after all, are still the object of fierce competition. Overall student numbers have been growing by 4 per cent a year since 1976/77, passing the three million mark in 1982/3, but only 3.5 per cent are on postgraduate courses. One of the country's leading higher education analysts, the head of the National Institute of Educational Planning and Administration, describes the system as a dinosaur with a vast body of undergraduates and an inadequate head of postgraduates.

Attempts have been made to alter the balance by encouraging more universities to concentrate on postgraduate courses and leave undergraduate work to their affiliated colleges. To complement this move, universities were urged to grant autonomy to their best colleges, thus easing the bureaucratic burden on the central services. However, although a number of universities and institutes are entirely postgraduate on campus, progress is slow in increasing the proportion overall.

It is a problem symptomatic of the central dilemma facing Indian higher education: how to satisfy the ever-increasing demand for undergraduate places while maintaining standards and also stepping up the supply of expensively-trained specialists needed by industry. Even when policies bite the bullet and divert funds into the elite institutions which produce the necessary specialists, there remains the over-present and apparently insoluble difficulty of the brain drain. Little wonder that the system is so full of contrasts and apparent inequity. The British legacy was a network of universities which was capable of expansion but which was never designed to meet the demands of an increasingly educated population in a modern industrial power.

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Next week: How the universities and the elite institutes cope with the conflicting demands made of them.

Students in higher education

Art	40%	1,338,230
Science	19.6%	650,851
Commerce	21.3%	707,803
Engineering and Technology	4.3%	142,108
Medicine	3.9%	129,508
Agriculture	1.3%	43,168
Veterinary Science	0.3%	9,922
Law	5.9%	195,919
Education	2.4%	78,698
Others	0.6%	19,924

ENGLAND WITHOUT A KING 1649-1660

THE SCIENTIFIC REVOLUTION

THE AGE OF DISCOVERY 1400-1600 David Arnold

Letting the credits roll

The launch of a computer-based information and advisory service this week could halve the time spent by students, school-leavers and adult returners who want to find out about university and college courses and the qualifications required.

The Educational Counselling and Credit Transfer Information Service already has a reputation to live up to and expectations are high. It is the outcome of a study carried out under Mr Peter Toyne, now deputy director at North East London Polytechnic. This looked into the feasibility of establishing a service for recording and providing information on the educational credits given by institutions with respect to previous studies.

Spurred on by a 15 per cent drop-out rate from higher education, the Department of Education and Science backed the study. This concluded that a national information service would indeed help to open up the opportunities for credit transfer provided that the service was independent of any existing institutions or educational sectors. It added that an initial period of two years must be set aside to acquire and put the information into data banks before the service went into operation.

Central financing would be needed for an initial period of up to five years. After that the scheme, as a non-profit-making charitable company, could charge users and become largely self-financing.

In the intervening years since the Toyne report was published in 1979 the nature of the information has changed and been extended. The ECCTIS, has been funded by the DES and undertaken as a three-year developmental programme by the Open University. It was asked to consider all course provision, not just with an eye to credit transfer, but so that traditional students with three A levels could also take advantage.

The ambitious scale of such an operation should be evident. It catches the imagination not just of the education and career services but the public at large. So the small team of 11 professional and administrative staff and two secretaries based at Milton Keynes wants to avoid overselling the new service.

Mr Peter Frogbrook, the director, is anxious not to raise false expectations for the embryo scheme, but the team is



Mr Peter Frogbrook, director of ECCTIS.

quietly convinced it is working on the beginning of an information and advice service which has enormous potential.

In essence the ECCTIS aims to provide information on all courses offered at universities, polytechnics and colleges throughout the United Kingdom which lead to a recognized qualification in advanced further and higher education. Early on, it became clear that it was not going to be possible to hold records on all non-advanced courses within the projected timescale of the project. So the geographic boundary of the South-West Regional Advisory Council for Further Education from Wiltshire to Cornwall alone has formed the basis for a mini-pilot on some 3,000 non-advanced courses.

Felicity Jones looks at a new academic information service

The information service aims to handle inquiries immediately or at least within 24 hours. Users will ring a direct telephone number 0908 368921. This will put them through on one of five lines to an information officer who will be seated at one of the visual display units linked to the OU's main-frame computer with a keyboard and printer attached.

The officer should be able to provide answers straight away to specific questions. The main problem will come with more general questions which could involve long lists of hundreds of courses which it will be impossible to convey over the telephone.

For example, someone might ring up to find out about first degree history courses. The ECCTIS now holds nearly 700 of these courses on computer file to be manageable, such a list would need to be reduced so that modern or medieval history was listed out; again this would be narrowed down to specialists like art, church, economic or social history. Even so, the end result might still be quite a lengthy list, difficult to read in detail in the course of one telephone call but which could be sent as a computer print-out by post.

Each course record includes the title, duration, mode of study, entry requirements, course content and options, qualifications awarded on completion, the recognition by other bodies of the qualification and contacts for further inquiries.

But as with all of these kind of search files, the stumbling block comes with not being able to find the correct keyword or an inability to narrow the search down sufficiently to be helpful. There are over 21,000 records with nearly 15,000 full-time and 6,450 part-time courses. Of these there are details of about 8,200 first degree courses, 2,320 diplomas, 5,170 postgraduate, 2,430 non-advanced and 3,350 advanced courses.

The adaptation of an educational *Thesaurus* is currently in process to help overcome these problems and to make cross-referencing much easier. In addition to direct telephone

advice and reply by letter, other methods to disseminate the same information are microfiche and direct access, using viewdata.

It is hoped to have a pilot microfiche scheme operating by next month using selected organizations such as public libraries, secondary schools and careers advisory services which will make the sort of intensive use needed for monitoring purposes. Up to 1,000 records can be held on a sheet of microfilm in alphabetical order by institution with an index into the system.

It is certainly one of the cheapest methods, at 9p a sheet, using OLI photographic equipment at the television production centre. The packs of microfilm can be updated regularly and sent out to replace out-of-date sheets to institutional subscribers.

But to really open up the access to the service a viewdata system which in theory any individual could use is the best proposition. The ECCTIS is hoping to link into Prestel by the end of the year to facilitate more individual access through micro-computer.

There are already a high number of educational inquiries made through Prestel for other information pages, which suggests that it could be a popular method for providing detailed information about higher education courses.

As a direct service for the more traditional young student with recently-acquired A levels, the ECCTIS would seem to be invaluable. But since the original trigger for the service was Toyne's report on credit transfer, it is legitimate to ask whether in its present form it can provide the level of help which mature students often require. The information officers at the other end of the telephone can provide the details about individual courses and translate that information for the use of the inquirer with some additional advice. But comprehensive counselling is a completely different matter.

However, it is exactly this kind of one-to-one help needed by adults who wish to continue their study where they left off and who often have a more complex set of qualifications, including life experience, to match to a chosen course.

John Taylor admitted that it was proving slow and laborious getting information from some institutions, particularly the universities, about credit transfer requirements for courses. It would be ironic if the original rationale behind the service should be tossed out the window just as it gets started at the end of this month.

Student life and work encompassed

The new campus universities of the 1960s produced a unique design for living. Twenty years on, Kathleen Jones reports on a systematic study of student life at York University

The new universities of the 1960s involved a considerable investment in higher education – and a faith in the value of higher education. How relevant are they to the needs of the more straitened 1980s? Were they just an extravagant dream of the expansionist post- Robbins years, or do they represent new and more effective patterns for university life? Small, experimental, in some ways unorthodox, have they long-term value for a university system under strain?

The University of York has been trying to find some answers – relevant at least to its own planning process. The development plan, produced in 1962, was a unique design for living. It involved the creation of a community of several thousand people on a marshy rural site just outside the city of York, and some fundamental assumptions about how they would live and work and spend their leisure time. It was planned as a collegiate community, housed within a "limited compass", the colleges providing residence for staff and students, teaching space, space for groups of various kinds and communal meals.

The colleges and other buildings were set out round a lake, created by the extension of the existing hall pond, which turned the defects of the site to advantage, serving as a draining basin and a surface for reflection. Detailed plans followed for an unusually sophisticated exercise in physical and social planning which provided for "natural and enforced association and the easy formation of groups through a wide variety of work and leisure activities".

The plan was a flexible one – "a minimum framework for growth" – and it was recommended that a systematic study of student life should be undertaken to monitor its development. Twenty years later, the university architect reminded us that this recommendation had never been implemented.

The physical plan – the lake, the colleges, the science blocks, the roads and walkways – had been translated into reality; but what had happened to the social plan which lay behind it? Did most students still live on campus? Did they find and meet their friends? Did scientists talk to non-scientists?

What use did students make of college facilities: refectories, snack bars, libraries, common rooms, and of general university facilities, such as the university library, sports provision and concert halls? Did students find most of their social life on campus, or take part in the life of the city, or both? In short, did the planned environment function as the planners intended?

The architect was asking for feedback, and it seemed appropriate that a group of social scientists within the university should provide it. We hoped that the results would also be useful to the university. The basic assumptions of the development plan are often invoked in policy discussions by students' organizations, boards of studies and university boards and committees, but with few up-to-date facts to back the arguments.

The University of York has to plan for the future in conditions of restricted finance, very limited physical expansion, and changing patterns of use: it was time to take stock.

A questionnaire was designed and piloted on 20 second year students taking a methods of social research course for the BA in social policy and administration. These students then interviewed a stratified sample of 400 students (one in ten) in some depth, the interviews taking from 20 minutes to one and a half hours each. The purposes and procedures of the survey were widely advertised in the university newsletter and by means of circulars.

The results were encouraging: students trusted the questionnaire, with 97 per cent of responses being completed, and there was an 82 per cent

response rate. The plan for a university housed within a limited compass had been successful. Over 77 per cent of respondents lived either in college or in university-planned accommodation in Heslington village. Nearly 93 per cent reached their teaching centre on foot, or by bicycle.

The chief reason given for liking the campus was its convenience – students were not much moved by aesthetic considerations, though over 60 per cent thought it was well planned, and only 14 per cent thought that it was not (the rest opted for "neutral/don't know").

Did the college system work? Some 75 per cent thought that it was "better than a wholly departmental system" aimed for the results; but we hope the questions were within the spirit of the development plan, which referred to "random contact and mixing" and to the necessity of overcoming isolation and parochial departmental attitudes.

Perhaps the most important finding is that students do make friends across what in other universities would be faculty boundaries (York has no faculty organization). The percentages of all full-time students in arts, science and social science were respectively 37, 36 and 27 per cent:

- 80 per cent of arts students had friends in science departments;
 - 91 per cent of arts students had friends in social science departments;
 - 87 per cent of social science students had friends in science departments;
 - 95 per cent of social science students had friends in arts departments;
 - 90 per cent of science students had friends in arts departments;
 - 89 per cent of science students had friends in social science departments.
- The figures are sufficiently weighty to give the lie to the persistent myth about the two (or should it be three?) cultures. It would be instructive to compare these figures with results for a non-collegiate university organized by faculties.

The use of university accommodation provided some interesting responses. The development plan envisaged communal eating as central to the university's life, and there were originally seven large refectories – one for each college and one for the whole university in Heslington Hall; the administrative headquarters.

High costs and lack of demand have now reduced these to four in term-time, and the trend has been to extended snack bar provision for students. At lunch-time, only 20 per cent ate in the refectories and 19 per cent in snack bars. Nearly 40 per cent ate in their own accommodation or in the college kitchens provided for groups of 10 or 12 members. In the evenings, only 19 per cent used the refectories, the use of snack bars declined sharply and 72 per cent ate in their own accommodation or in the college kitchens.

This does not imply that the refectories could be closed down – all four are very fully used by the conference trade in vacations, and some of those closed in term time have to be reopened. We would like to know more about eating patterns in regular solitary meals, and about the highly organized communal provision in the kitchens. Over 70 per cent of students prefer to study in their own accommodation rather than in libraries or departmental



York University: students said they particularly liked the lake, the compact campus and the college system. They disliked the noise and the building materials.

tal accommodation. In addition to the university library, each college has a library: departmental provision for private study, except for graduates in some subjects, is very limited.

Each college has a large junior common room and most have a separate graduate common room. These facilities are used regularly by only 39 per cent of students and 29 per cent never use them.

The general picture which emerges is one of a plan for a highly communal kind of student life, but a reality of small group living. Large open spaces are under used, while small, informal spaces are crowded.

The development plan noted: "The distance from the nearest point on the site to the city walls is a little over half a mile, and to the centre just over a mile. It made detailed plans for physical linkage to 'cement' the relationship between city and university."

These plans were never adopted by the city of York and we found that students, housed within their limited compass, played little part in city life. Most of them had visited York minster, and went into the city once a week for shopping, a meal, or a visit to a cinema or theatre, but the half mile to the city represented a real gap between one world and another. Apart from the failure of the "cementing" road system, the lack of public transport and the self-sufficiency of the campus, a reason for this may be the development of York as a major tourist centre.

Aspects of the campus which the students particularly liked (mentioned spontaneously in answer to a question without prompts) were the lake, the general environment, the planning, size and compactness of the campus, and the college system. Aspects which they disliked were noise, the building materials and the feeling of living in an institutional establishment. Though "likes" far outweighed "dislikes", and many students listed no criticisms at all, these are worth further consideration.

Noise was the principal disadvantage, mentioned by 35 per cent of respondents. This may be a response to the electronic age and the spread of hi-fi equipment; but possibly students are more hard working, and require more peace and quiet, than they did 20 years ago. Several colleges now have "quiet blocks" for students who object to noise.

Complaints about noise, like complaints about building materials, concrete or bare grey walls, may relate to the cheap system of building which had to be used in a period of rapid university growth. No other system was cheap enough and speedy enough to meet the need.

An "institutional" atmosphere may simply be the result of living with people like oneself. The student who complained that the university contained "too many students" was being somewhat unreasonable.

The smallness and diversity of family living (which is the only form of living which most students have experienced before they come to uni-

versity) cannot be replicated in a setting devoted to teaching and research; but it is significant that students appear to be creating their own small groups, and finding social meaning in them.

Students respond to questioning about the campus as consumers: they do not distinguish between the basic features of the site, the brief given to the architect by the academic planners, what the architect made of it, and what the policy makers at university and college level have made of it since.

There are many other things which we would like to know. There is no comparative material against which to measure the findings of this survey – either in terms of changes over time in the University of York, or, as far as we are aware, in terms of comparison with other universities.

It would be useful to know whether the patterns of small group living are

new, or whether they developed from the beginning; whether students like their environment more – or less – than students in the 1960s and 1970s; how students' perceptions at York compare with student perceptions at Stirling and at Bath (designed by the same architect); or at the other new universities (designed by different architectural practices); or at the civic universities, organized for the most part on strictly departmental and faculty lines; or at Oxford and Cambridge, where the collegiate system developed naturally over the centuries.

Even in a time of savage financial cuts, universities are expensive places. Perhaps the cost of finding out would be justified.

The author is professor of social policy at the University of York.

The links between polytechnics and industry may not be as strong as they seem. Patricia Santinelli reports

Polytechnics proud of their links with industry may be somewhat surprised to find themselves lambasted by employers for their lack of effort in a National Foundation for Education Research report on technician education published earlier this month.

Employers involved in the evaluation were particularly critical of polytechnics because they felt they were more reluctant than technical or further education colleges to acknowledge the symbiotic nature of their relationship with industry," the report says.

Consultation with industry, as the report points out, is an important principle within the Technician Education Council structure. When submitting schemes for approval, colleges are required to show that they have taken national and local needs into account and have a mechanism for consultation with industry.

The report, based on a three-year study from 1979 to 1983 of the former TEC programmes, was sponsored by the Department of Education and Science. It concentrated on student progress and employers' perceptions, as an earlier report in 1981 had already evaluated curricular change and TEC in the colleges.

In fact, polytechnics were the only ones to be criticised. Although the report says that on the whole the relationship between college departments and industry is good, employers appear to be extremely dissatisfied with all institutions over three aspects of college/industry liaison.

These are the lack of adequate student progress and attendance reports, as well as the dearth of detailed information on the actual content of TEC programmes.

"Lack of notification of student absenteeism in particular is seen by some employers as symptomatic of a general unwillingness or inability on the part of college staff to communicate with industry or to understand the problems faced by companies," the report says. These sectors, engineering, building and science, were evaluated.

No doubt, polytechnics and colleges will argue, with some justification, that these criticisms are rather one-sided. Employers themselves have not always been forthcoming and have often failed to respond to college staff overtures, especially in the early days of TEC.

This aspect is mentioned by the authors, Christine Moore, Alan Dean, and Sherrill Andrews, but because of the nature of the

A conflict of interest

evaluation it is given scant attention. They do point out however, that college lecturers expressed considerable disquiet regarding the feasibility of involving employers in TEC programme design and development because of earlier experiences. There is no doubt, however, that the NFER study was extremely thorough. It covered some 38 colleges throughout England and Wales through questionnaires. This involved some 2,046 students and 1,074 employers, out of which 395 responded.

In addition the NFER selected some 16 colleges as case studies which would reflect a range of TEC provision, geographical, location and industrial contexts. This exercise involved some 100 employers and 183 students and was mainly carried out through interviews.

Some may argue that it is rather "passed" because TEC has now merged into the new Business and Technician Education Council. But it is more likely that the NFER findings will prove invaluable to BTEC, which is currently reviewing the entire educational policy and curriculum with colleges and industry.

The authors stress that some of the issues discussed will in fact grow in significance, and that the need to resolve them will become increasingly urgent in the face of new initiatives in post-school education and training, which requires close cooperation between colleges and industry.

"Effective mechanisms for liaison will be essential and in this context the expertise of college staff and employers regarding the introduction of TEC programmes are relevant. Conventional solutions, such as consultative committees and advisory groups may have to be replaced by mechanisms more compatible with industrial timetabling and pressures," they say.

However, college/industry liaison was not the only area that employers criticized. As the report shows, engineering and building employers were unhappy with college timetabling which resulted in college trainees having to attend more than one day a week.

"Employers felt strongly that 'day releases' should mean just that. The costs of releasing trainees for even part of a second day could be considerable, particularly for small companies," the report says.

The authors say it would be wrong to offer a simplistic solution to complex problems, but they foresee a possible increase in block release support as a result of two changes. One is the reduction in engineering apprenticeships from four years to three and a quarter years.

The second would result from the replacement of the one-year bridging course by a two-year certificate for building trainees, and a possible extension of the higher certificate programme to three years. However, they warn here, this may also serve to encourage bypassing of TEC, as is already being done in the case of quantity surveying trainees to avoid protracted release.

The same two industries surface again but very much on opposite sides in the authors' assessment of TEC's acceptability to industry and professional bodies.

"Engineering employers have generally welcomed the establishment of TEC, although they emphasized the need for programme content and college facilities to keep abreast of new technology. In contrast the building industry's response was less than rapturous," they say.

Indeed the building industry appears to have had little good to say about TEC. For example they were not satisfied with TEC's fulfilment of its role as a stepping stone towards professional qualifications and as a provider of job-specific knowledge.

In addition, both employers and professional bodies were concerned that TEC's flexibility existed in principle but not in practice. Attendance patterns, college timetabling and the availability of specialist options were the main areas where greater flexibility was thought to be needed.

Ironically it was the building employers' students who gave the most positive responses when asked how relevant they thought TEC studies were to their employment.

This was especially the case at higher certificate level, where 13 per cent of the building students thought that the programme's overall relevance was considerable, compared with only 4 to 5 per cent of engineering and science students.

However, other questions about the future of TEC, such as building and science students were less convinced their engineering

students that this would improve their job prospects. Building students placed a greater emphasis on TEC's relevance in terms of improving job competence, knowledge and understanding than their counterparts in the other two groups.

Both building and science students also found that their TEC studies made a greater contribution to job learning than engineering students did. But the report does point out here that in-company training provision for engineering trainees is structured and extensive compared to the other two professions.

College attendance is a condition of employment for 71 per cent of certificate students and 54 per cent of higher certificate. About two thirds of students covering all types of courses thought that the level of their studies was about right. The majority of students at certificate level intended to continue their studies, with the highest number being in the building sector, with a large proportion intending to take a higher certificate. At diploma level, half were intending to undertake further studies, with some 22 per cent planning to study for a degree. At higher certificate and diploma level, about half intended to take professional institute examinations.

But perhaps the best account of students' as well as employers' perceptions in the report comes in the section on case studies. This shows very clearly and sadly the mismatch between the very ambitious career plans placed before them in a somewhat dimly lit by their companies.

In this context, the report points out that the case studies particularly highlight the need that TEC students have for information and choice about further education opportunities. This is especially so in the case of students going on to various professional institute exams.

"Such students are not aware of the institute's requirements in terms of prerequisite units or of the full range of further education courses available. It is necessary that full and impartial information be available for all TEC students, preferably before they embark on a higher certificate course."

TEC Programmes Evaluated: Student Progress and Employer Perceptions, by Christine Moore and Alan Dean with Sherrill Andrews, a report from the National Foundation for Educational Research, published by NFER-Nelson, £9.95.

AGES OF WORLD HISTORY

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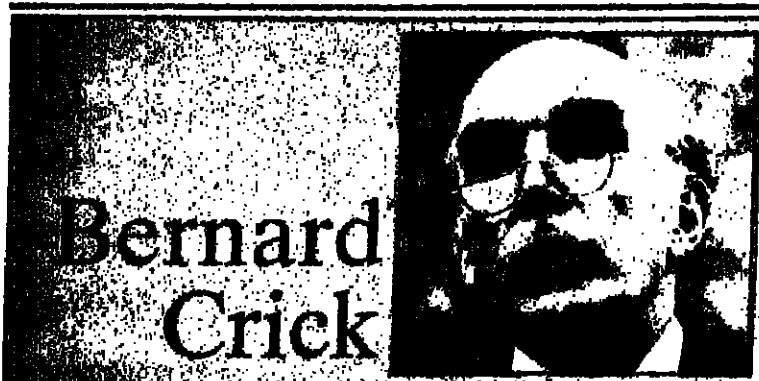
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Bernard Crick

Dog eats dog – and it sticks in the gullet

Many years ago I stopped for coffee at a small and shiny diner while driving to Nantucket. It was a one-horse show, or rather one hard-working young woman whose accent alone revealed her as, well, not German precisely, but Swiss. She said she had come out to a "real nice" family in Connecticut. The husband had thrown her out but "he gave me a Caddy" (Cadillac) instead of wages, and she had swapped it for the Sea Cafe with a guy she met. "Do you like America?" "Ya, OK, but der hard work. Ya, gee whizz, dog eat dog." The vocabulary confirmed her tale that she had worked with the children of the problem rich.

Now dog should not eat dog, yet my joy at finding a random copy of *The Times* at Kent County International Airport, Grand Rapids, was marred by giving Old Thunder much closer, cover-to-cover reading than one does at home. But at home I can take Ronald Butt or leave him until I'm feeling stronger. His style is not as irritatingly compulsive as that of Bernard Levin, nor his matter always as bizarre and unusual as that of my Birkbeck colleague, whose name I'm never sure how to pronounce, the one who carries on the populist tradition set in his department by the late and great C. E. M. Joad. But Butt's first sentence riveted me: "Mr Neil Kinnock has risen with the New Year like a waxen-winged Icarus flying towards the sun of media exposure." But it has also stuck in my gullet nastily.

The first two paragraphs were fair old political knock-about, or as Schwab said of the prison chaplain's sermon, "good flapdoodle." Enthused by the charms of Miss Melina Mercouri he is firmly determined to give the European Commission a good kicking. "Mr Kinnock's obvious pleasure in finding at least one subject on which he can give a clear lead without dividing the Labour Party or antagonizing too many votes at the next election." So "brooding on these things," the marbles and Ms Mercouri presumably, he thought it would "be salutary to leave Mr Kinnock in peace to wrestle with his Party," but he remembered another "firm commitment" – "the abolition of all independent non-state schools" – which is news to me, but let that pass. "Of all Labour's commitments it is the one most inimical to personal freedom. I will illustrate my case by a story from real life." And he was then off on the circuit to familiarize his readers, like an angry authority trying to gallop and jump.

A Dane had come to London six years ago to show Butt some pornography designed for "use in Denmark's state schools." "The horrible nature of which forbids its description." It followed that our independent schools alone defend standards and decency against the comprehensive's "threat." Only "an independent sector" can resist the "fashions which can sweep through the public sector not only in terms of morals and political indoctrination, but in foolish academic fashion as well." Perhaps readers who don't follow him regularly will not immediately see the self-evident connection between the Labour Party, pornography, comprehensive schools and (talking of civility) Ms Mercouri, and readers who do follow him will see the connection between the Labour Party, pornography, comprehensive schools and (talking of civility) Ms Mercouri, and readers who do follow him will see the connection between the Labour Party, pornography, comprehensive schools and (talking of civility) Ms Mercouri.

My heart bleeds for Sir Keith. With friends like this, who needs enemies? What "state sector" – is this ignorance, malice, satire or prophecy? Why insult so many teachers working hard for, as Lady Howden remarked, "all our nation's children" who, in fact (if that's what standards mean) get much the same examination results among those who stay on to 18 and sit three A levels as do private schools? The difference lies in the numbers who do stay on – which correlates with home background, or social class of parents, more than with schools. According to A. H. Halsey's *Origins and Destinies*, the Oxford Social Mobility Project, Butt and I wasted our money on sending our sons to the same school; parents' class is enough – but he doesn't seem very familiar with social statistics, except perhaps the pepper and salt of Lady Cox's manipulations.

But Butt's invocation of pornography to get a punch line on Kinnock is, to put it mildly, a bit off. "The Labour Party is still heavily influenced by social engineers of a totalitarian mode of thought who do not like dissent. Heaven help us if every school in the land were controlled by a state controlled by them. Mr Kinnock should think again. His commitment to destroy any education truly free of the state is dangerous and symptomatic." Now I must send Ronald Butt in a plain brown envelope the results of the last Labour Party leadership elections and biographies (copied from the *Times* *Guide*) of the Shadow Cabinet. I must introduce him, if they will lunch with me at the Savile, to Giles Radice, the Shadow spokesman for education, a thoroughly respectable and decent fellow, Roy Hattersley's campaign manager, a social democrat in the true sense of the term.

I showed Butt's article just for fun to an old friend who is president of one of America's leading private universities, an old Congressman too. He commented sadly and rather boringly on declining standards in British public education since his Oxford days. He asked if "they were running scared of Kinnock?" The Fabian Society had its centennial school at Ruskin just after New Year. We sang songs from a 1930s song sheet and one of them had the chorus "Murder, revolution, rape and arson, when the Red Revolution comes." You make up topical verses as you go along, but one of the oldest was "We disseminate pornography." In parallel, Gladstone, professor, Douglas, made up, I suspect, by the late C. E. M. Joad, a popular image that the Butts of the day were trying to stick on the Fabian Society. Oh that we had, indeed, the gift to see ourselves as others see us. I know how Butt sees me and my political friends. But I see Butt as pompous, boidered, ill-informed, ridiculous and – what is worse – as betraying the old standards of public debate in this country. There are serious and real issues between the parties that deserve serious treatment and, mutually respectful treatment, and a bit of civility in those matters.

Janet Humphreys on the shortage of women university researchers

Babies and test tubes

Despite the growth in numbers of women undergraduate and post-graduate students in recent years, the proportion of women among university research staff at British universities remains disappointingly low. A disproportionately high number of women are employed in the lower status positions, frequently on fixed-term contracts. This deficiency is observed for a wide range of academic disciplines and not confined to traditional male preserves. The percentage of women obtaining good honours degrees has steadily increased since the 1960s. Why has this not been accompanied by a corresponding trend in the number of women employed in academic research?

Blatant discrimination does not appear to be the cause of our research institutions. Few women admit to being victims of discrimination and the number of women appointed to academic research posts reflects the small number who submit applications. A subtle form of discrimination against women who take a break to produce a family does exist in the guise of age limits enforced by some research funding bodies and the age barrier of 35 for "new blood" posts. The recent abolition of the 30 age limit for SERC studentship schemes will provide a route by which women (and men) who left university after graduation may embark on a research career.

Lack of mobility may be one reason why married women leave academic research. A woman may find that her partner, in order to advance his career, may need to move to an area where a post in her field of research is unavailable. They may have to live apart, dissolve the partnership, abandon one or other career, or compromise by agreeing to that neither will seek advancement on such terms. A woman may be free to move in order to widen her research experience if her partner is very unselfish or his career is geographically flexible or unimportant to him.

No doubt a significant number of women retire from academic research when they choose to start a family. They may find the prospect of juggling research and domestic commitments (to the possible detriment of both) overwhelming. The nature of research precludes the option of taking a complete break for, say, ten years. It is necessary to keep abreast of developments if one ever intends to resume the work. However, women employed in universities can more readily combine career and family obligations than those employed in other occupations because they frequently have control over their own work schedule. Women whose research does not involve long hours in the laboratory may be able to continue at home. Generous maternity leave (exceeding the statutory requirements) is granted by many universities to those women sufficiently fortunate to obtain a permanent staff post while still of child-bearing age. Such leave may wreak havoc



advancement on such terms. A woman may be free to move in order to widen her research experience if her partner is very unselfish or his career is geographically flexible or unimportant to him. No doubt a significant number of women retire from academic research when they choose to start a family. They may find the prospect of juggling research and domestic commitments (to the possible detriment of both) overwhelming. The nature of research precludes the option of taking a complete break for, say, ten years. It is necessary to keep abreast of developments if one ever intends to resume the work.

The career prospects for both men and women in university research are bleak at present and many talented people are leaving. We must accept reluctantly that the academic institutions cannot offer the job security and attractive salaries necessary to retain much of their research staff. However, they might consider an investment in maternity and nursery provision to be a relatively economical means of tempting some of their valuable research workers to stay.

The author is a researcher in the department of physics at Leeds University.

A partnership in paradox

If anyone has asked them, they may have found that television producers see themselves as stronger supporters of the Open University than course teams. It is clear that the OU would not have become what it is without the BBC but in these times of budget cuts, producers may well feel their contribution to be not appreciated. To rub salt in the wound the message from some quarters of the OU is that broadcast, because of its expense, ought to be the last medium considered after audiocassettes and videocassettes. No one has attempted however to measure the cost in loss of image and visibility nor the more difficult to measure creative and aesthetic qualities unique to broadcast quality programmes.

I've been saddened to see producers in some situations having to argue that the unique merits of broadcasting ought to be considered alongside other media. It's harder days for seen producers fight for what they believe in and that was simply to reach and draw in a wider audience. That fight, however, had more to do with a fundamental paradox in the OU/BBC partnership. If you consider that an OU course with all the components of a distance system is produced in a situation of intense long-term interpersonal relationships, the course team, why is it BBC staff appear to be more concerned about a public image or relatedness with society than some OU staff?

Robert Nicodemus on the lack of cooperation between OU course teams and BBC producers

Although producers are sometimes pulled into and used for this development, their conflicts with academics appear to be, in my experience, more in the area of autonomy and authority, the conflicts are sometimes waged around or result in control of information. Although this may be partly understood with reference to the problems of BBC/OU relations with the BBC, from what I am told about the nature of work in BBC/OU, it could not possibly differ more from work within a course team.

The answer to the paradox resides in the fact that the sense of relatedness which is necessary for group work is already present in the structure within which producers work. Looking at this difference may help us understand some things important to efficiency. Why do some authors over-produce or produce materials which cannot be used? Why do some not produce what they promised or do it on time? Why is criticism such a problem? A developing sense of oneself in relation to work and those one depends on is a problem for academics in interpersonal relationships but little in terms of work. How does the work of a producer then appear to differ? Work in the BBC, so I am told, is more concentrated, planned and integrated simultaneously with many different specialities. Intense periods of work alternate with a few of rest and this rhythm is planned far in advance. The producer has his work evaluated shortly after completion. Indeed, the time of academic's work is evaluated before or after a year or two into writing another course. The producer joins a course team when some structure is already well defined. There is a clearer sense of

beginnings and endings compared to academic work where perhaps a year of work through committees preceded this point.

The infinite expansion of space and time filled by bewildering dislocations in the number and variety of interpersonal relationships is a fact of academic life which appears essential to the development of course teams and the sustaining of their creative efforts. There is a cost. These qualities of a work environment, of dependence on others who are either independent or removed in time and space, stimulates a series of anxieties which are worked through within the personal relationships within a course team. There appears to be a natural history to a course team through which a number of dichotomies are resolved such as fantasy/reality, persecution/support, destruction/creation, dependence/independence and related/isolated. The struggle of resolution results in the creation of a distance teaching system.

But the effects of the struggle are sometimes traumatic. It is not surprising that course teams draw back from the interpersonal whether focused through broadcasting or summer schools. At an institutional level, the extent to which the rational and interpersonal remained un-integrated, is the extent to which we may expect to find it being resolved by groups who feel relatively isolated or outside or simply fragmented internally.

The BBC thought the nature of its work appears to be a more integrated institution. But then what about the partnership perhaps reflects about the society? What is there expressed by un-integrated there and expressed by the difficulties of organized work imposed by uncertainty about budgets. Are we being used to help work through some problems in society? Are the consequences of someone's failed ideals being worked through here so that society becomes more integrated? The paradox in the OU/BBC partnership may give us some clues about this. The author is lecturer in the Institute of Educational Technology at the Open University.

The key focus of attention for theorists of international relations is the international system. It may seem unduly flattering to ascribe the term "system" to the sometimes anarchic and increasingly conflict-ridden state of contemporary international relations.

"System" implies a set of relations capable of rational explanation, a minimal degree of regulated and hence orderly behaviour, and a high degree of interaction between the constituent units and sub-systems. However, the intensive publicity accorded to wars, revolutions, and state and factional terror, tends to hide the fundamental reality that the overwhelming majority of relations between states are peaceful and cooperative and conducted within the recognized norms and rules of international law.

Some theorists argue that the lack of a Sovereign capable of law enforcement in the international order, the absence of what Hobbes calls a "Moral God", and the consequent constant expectation of violent behaviour that international relations are at best only quasi-political. Yet this in no way invalidates the concept of an international system.

For all the major theorists of international relations from Grotius and de Cailles down to Morgenthau and Aron in our own times, the central problematique is concerned with how, given the facts of war and constant power struggle, the international system can preserve some minimal level of stability, peace and order. Far from being anachronistic this central problem becomes more urgent than ever by the mid-twentieth century.

European diplomats of the 1880s would have regarded any question as to whether the international system itself would survive as totally ridiculous. In the after-glow of the Congress of Berlin (1878), the last great exercise in international crisis management by the nineteenth century concert of powers, they all assumed that balance of power diplomacy was the only proved and practical way of preserving international stability. They had been brought up to believe that this method was capable of adjusting to any foreseeable changes in the relative power and foreign policy aims of any of the major actors in the system: it did not occur to them that the whole structure could be undermined.

This confidence was a reflection of the moral consensus among the political establishment. What was the underlying assumption on which this balance of power consensus was based?

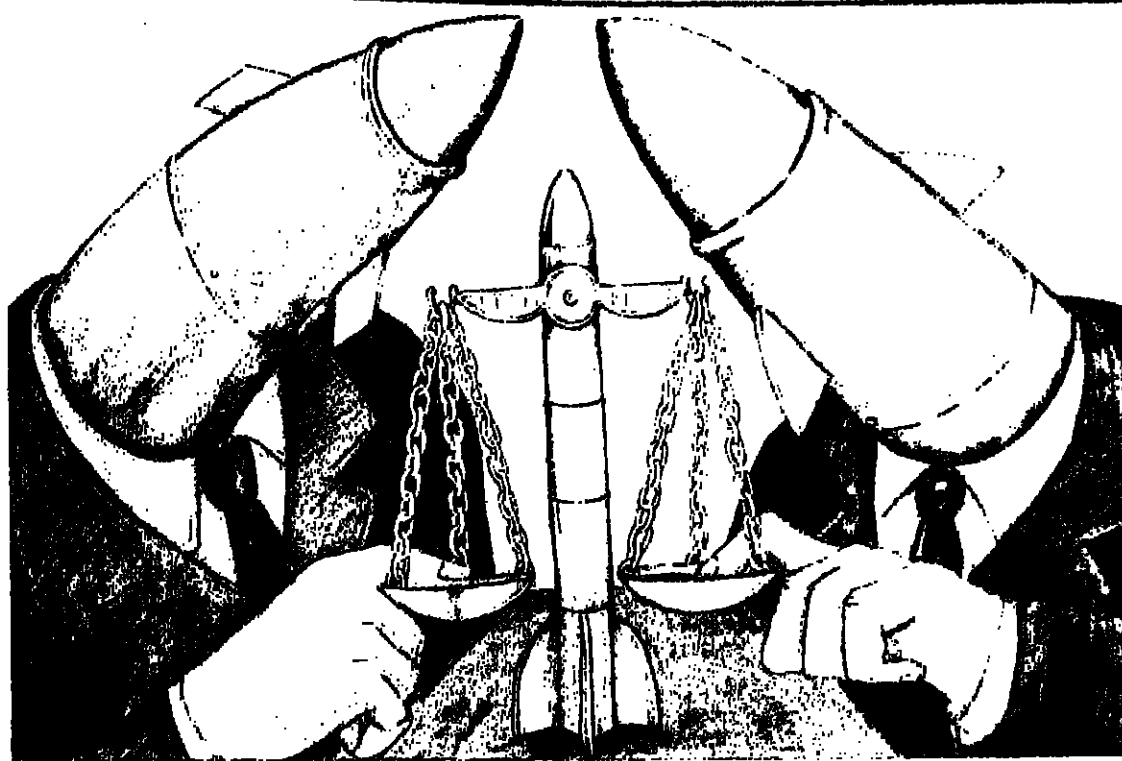
Fundamental to the system was a determination to prevent any hegemonic power or coalition from destroying the balance. Implicit in this position was a rooted opposition to any establishment of a supranational authority over the system. In that heyday of positivist theories of international law, absolute sovereignty of the major powers in the system was viewed as sacrosanct.

The second key assumption was that the use of military force, including full-scale war, was a natural and even desirable instrument of foreign policy. Rational maximizing powers would always prefer to gain territory, resources, geo-strategic capabilities or increased prestige, by diplomatic negotiation. But it was assumed that they would use force when negotiation failed rather than miss an opportunity of gain.

Yet although victors in wars expected to achieve material gains in terms of annexed territory, adjustment of frontiers in their favour, access to ports and markets etc, they did not seek the total elimination of other key actors in the balance of power system. Total war between major powers was therefore felt to be incompatible with the system.

The natural corollary was that every major power was considered a potential ally by any other major power. Thus membership of nineteenth century alliances was characteristically constantly in flux and the allegiance and reliability of allies at best ambivalent, at worst unpredictable.

The catastrophe of the First World War was the tragic result of the failure of the classical balance of power system, and signalled its death knell. The more far-sighted of the strategists and statesmen at the turn of the century already sensed that the old balance of power assumptions were fatally undermined. Under its "new" Germany had already developed aggressive and ambitious foreign policy aims which could not be satisfied under the existing European balance of power and also was developing



The balance of terror

Paul Wilkinson examines the challenges confronting the international system into the 21st century

ing the military, naval and industrial might to tempt her impetuous leadership into challenging the system. The fanaticism of nationalist conflicts and Austro-Hungarian and Russian rivalry in the Balkans, recently liberated from Ottoman rule, proved to be beyond the reach of diplomatic settlement and compromise. Failures of communication both within and between the protagonist regimes meant that policymakers took irrevocable postures and decisions to mobilize without full awareness of the possible consequences and last-minute chances of diplomatic settlement were missed.

Public opinion was generally too ill-informed and easily prey to jingoist nationalism to serve as a brake on governments rushing to war. And the positive consequence of these more independent groupings is that they can also provide channels of sustaining dialogue, and extending détente and international cooperation, even when the climate between Moscow and Washington is at its chilliest.

There are a number of reasons for assuming that the nuclear balance of terror will continue to be the central feature of the international system well into the next century. This is not because it is the most morally or theoretically desirable means of constraining tendencies towards major war between the superpowers. It is because other options seem totally impracticable. General and complete disarmament seems a distant dream as long as the ideological division and suspicion between East and West remains so profound.

The continuing decline of the United Nations' political influence and peacekeeping capacity makes it inconceivable that we could find a sufficiently powerful and authoritative world organization to plan, organize and implement a disarmament scheme on such a scale. Moreover the "peace" movements seem unlikely to destroy the nuclear balance, even though that would indeed be the inevitable result of the success of unilateralist ideas in the West.

The electorates of NATO states have remained remarkably wedded to the ideas of multilateral disarmament combined with nuclear deterrence until multilateral disarmament has been achieved. The fact that NATO has remained firm in its determination to counter the threat from Soviet SS20 missiles by deploying cruise and Pershing weapons in Europe is a notable defeat both for Soviet policy and the unilateralist movement.

Paradoxically, if the West did unilaterally abandon its nuclear deterrence it would make Soviet nuclear disarmament less likely than ever. Andropov has made it clear that Russia will never relinquish its nuclear weapons. NATO's reluctance but indispensable modernization of its nuclear weapons for the defence of Western Europe has given the Soviets a tangible incentive to come to a reasonable and balanced

arms control agreement. The Russians may also have been deluded into believing that differences of opinion in the Western alliance (health and inevitable in any community of democratic states) could be exploited to bring about the uncoupling of America from her West European allies. They should recall that NATO has survived far graver tensions in the past, for example, over Suez and the Vietnam war. A key reason for being optimistic about Western Europe's security and stability over the next 40 years is the deep underlying strength of the commitment to the unity of the alliance on both sides of the Atlantic.

A second reason for assuming that we are likely to survive the balance of terror for the next 40 years is that the superpower domestic political systems show no sign of radical changes in ideologies or institutions. It is true that Andropov's current absence from the scene creates temporary uncertainty, but the Soviet Communist Party leadership looks as though it will remain in control of the Soviet state for decades ahead. Islands of internal dissent exist, but there is no chance of a mass movement of internal reform while the party and the KGB has such an all-pervasive control over information, education, culture, and recruitment to all sections of the hierarchy.

Third, there is no real prospect of the emergence of superpower. China, developing sufficient strategic or economic power to challenge the superpowers, even by the middle of the next century. New oil resources will help to speed China's economic development. Provided they sustain internal political stability their economic modernization is likely to be remarkable. But the Soviets and the Americans will by then have an even more colossal lead in strategic weapon and space technology.

Proliferation of nuclear weapons (technology to other states will create fresh dangers, but may also lead to greater restraint and prudence on the part of governments. In any case they will not significantly affect the strategic balance between the superpowers.) Some may object that the assumption of the survival of the superpower balance of terror fails to take account of the potentially destabilizing effects of unilateral developments in military technology. Of course one cannot entirely discount the possibility that one of the superpowers will achieve a monopoly in a new invention, such as a satellite-based ballistic missile defence system: providing an overwhelming advantage, and possibly tempting one party into a preemptive strike. But in the light of the little we do know about current military research on both sides it seems highly unlikely that one superpower alone will get supremacy in this field: for example, both have conducted research on satellite-killing programmes, and laser and particle beam systems of BMD.

Despite the recent Soviet walk-out from the INF talks at Geneva and the current hiatus in the START and MBFR negotiations, there are some grounds for optimism that arms control dialogue will recommence and even intensify over the next few decades. Neither side can view with equanimity a total breakdown in these discussions. But realize that there could be no winner in a major nuclear war, and both know that arms control must be the centrepiece of any moves to greater stability and peace in East-West relations. Last, but by no means least, neither side can really afford the economic and political and social costs of an unrestrained nuclear arms race. If these assumptions about the likely developments in the international system are correct, there are two other conclusions that follow from them. First, in any revitalization of the détente between the superpowers we could expect greater multipolarity, some progress towards local and regional détente, more independent and influential roles for regional groupings, such as the European Community and non-aligned nations, and a loosening of the great power blocs. Another important effect of the nuclear balance of terror, amply demonstrated over the past 30 years, is likely to be the continuation and intensification of unconventional conflict, mainly in Third World areas. Undeclared guerrilla and terrorist struggles, subversion and ideological and political warfare are increasingly perceived as low-risk and potentially high-yield methods of securing foreign policy objectives in circumstances where expensive conventional war carries grave risks of escalation, and when the superpowers are unwilling to involve themselves directly in military intervention in third areas.

This type of struggle is likely to remain the characteristic mode of warfare well into the twenty-first century. There is no historical evidence for assuming that such warfare, tragic and lethal though it is for the civilian populations involved, will in itself undermine or prevent the maintenance of the superpower balance of terror at strategic level.

However, there is always the danger of escalation into wider regional conflicts. If the superpowers are to avoid being ultimately drawn into such wars and if there is to be any success in terminating these conflicts by mediation, peace-keeping, neutralization or other methods, far greater efforts need to be made by both superpowers to promote (or at least avoid blocking) crisis management and diplomatic resolution of local and regional conflicts. Tragically, one of the main consequences of continuing weakness and decline in the power and resources of international organizations is likely to be that the gulf between the economies of the industrialized and the developing countries will widen still further. The short-term effects of the current recovery in the American and West European economies will hardly be felt in the poorest economies, already weighed down by their huge debt crises and the impossibility of meeting their basic costs of imported energy, food supplies and manufactured products.

For theorists in the prosperous "north" the key problematique of international relations will remain the prevention of nuclear war. But although one may be optimistic enough to believe that humanity will avoid *The Day After*, many of the poor peoples of the "south" are likely to suffer terribly, not only from the proliferation of many more civil and international conflicts on their territory, but also in their increasingly desperate struggle for sheer economic survival. Future leaders and diplomats must therefore learn to think in ways that transcend both traditional chauvinism and conventional disciplinary boundaries. Let us seek to create a new generation of Renaissance men and women, people who are not afraid of grappling simultaneously with the application of science and technology to the economic and ecological problems of humanity and the international political and diplomatic challenges of conflict prevention and resolution.

The real challenge is not merely to survive the balance of terror but to create the conditions in which men can at last overcome tribalism and war and build genuine internationalism and rational scientific cooperation. The author is professor of international relations at the University of Aberdeen. He is also series editor of *Key Concepts in International Relations* and *A History of Political Violence*.

BOOKS

When nature plays second lead

by P. B. Medawar

What Sort of People Should There Be?
by Jonathan Glover
Penguin, £2.50
ISBN 0 14 0222 243

Glover's being a professional philosopher raised the hope of reading a really searching analysis of the wild notions about genetic engineering and manipulation of the human genome that have become widely current through the writings of some science writers who are often not very deeply informed and who enjoy promulgating rather scary ideas.

Top professional opinion takes a rather snooty view of much of this kind of talk. I have heard Jacques Monod speak with amused contempt of the more extravagant claims made not by genetic engineers but by writers professing to be able to speak for them; and at a recent conference in Paris the totally dismissive comments of François Jacob on the notion of using sperm of Nobel laureates to raise a generation of superior children were greeted with delight by the audience. The two names I have dropped are of men whose discoveries in molecular genetics lie at the very root of the extravagant speculations that Glover discusses.

It will come as a shock to most people to learn that an application of methods already known and understood – and known to work – makes it possible in principle, starting tomorrow if thought fit, to raise two races or breeds of human beings, the one tall, handsome and well favoured – the “eloi” of H. G. Wells’s *Time Machine* – and the other stunted and stupid, fit only to be their servants – Wells’s “Morlocks”. All that needs to be done is to institute for a millennium or so a regimen of controlled mating or abstinence from mating perhaps with some sublethal irradiation to add to genetic variance and enlarge the candidate for selection. Easy, in it? The method used is that of artificial selection, by far the most powerful technique of genetic engineering. Easy, in principle, to be sure, but not desirable in principle or feasible in practice.

Likewise, it is already possible to regulate the contents of children's minds; filling them perhaps with evil teachings so that they come to think good all that we now think bad and vice versa. The procedure by which this could be brought about has been well understood for several millennia: it is called “education” and here what stands in the way of its being put into effect is the non-existence of schools committed to these principles combined with the fact that pedagogical offices in such a school is not yet a recognized step on the ladder of academic advancement. Still, the educational policies of some totalitarian states might be thought to realize this nightmare in principle.

Artificial selection is not, however, raised as genetic engineering as the expression is now coming to be understood, the sense today being rather of direct genetic manipulation of the genome adding some genes or subtracting others. Glover assumes this will become possible using human beings as subjects – as it is possible using mice – and tends to classify supporters as “mechanical” Bureaucrats, those who have pronounced impossible innovations that have later come about (such as, in Rutherford's scepticism of atomic energy or, I may add, Oliver Lodge's of telecommunication) and a former astronomer royal of the possibility of space travel. Glover accordingly feels himself entitled to ask the question that forms the title of his book.

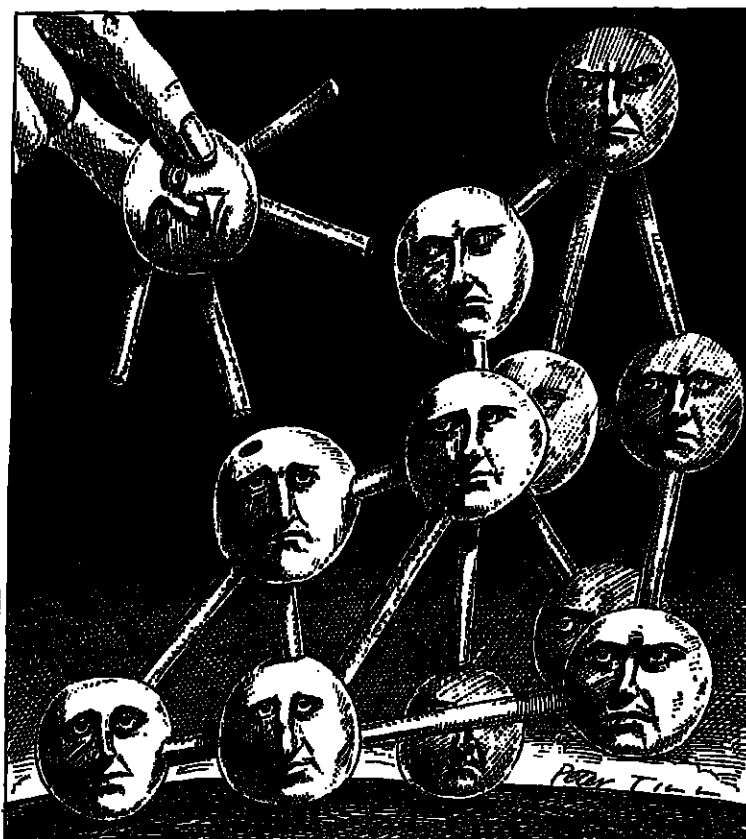
Unfortunately, the question embodied in a wholly unhelpful question, namely that even if we could agree upon what changes should be made in human beings, we should be able to specify the genetic alterations that would cause these changes to come about. Just suppose that our ambition was to produce a genetic change in a human population riddled by malaria such as would counter upon it some measure of inherited resistance to the malarial killing disease. In cases like this we could not possibly predict just what genetic alteration

would achieve this desired end result, though, wise after the event, and by drawing upon empirical experience of populations that already enjoy some degree of antimalarial immunity, we can now confidently say that some measure of immunity will be secured by introducing into the population a gene which converts normal haemoglobin (A) into a variant haemoglobin S which causes a very mild disease, “sickle cell trait”, causing the collapse upon themselves of red blood corpuscles in deoxygenated blood. This gene is widely prevalent in West Africa and the Mediterranean basin. People who inherit the gene S from one parent suffer this minor disability and enjoy also a quite high measure of resistance to falciparum malaria.

I think it quite likely that immunity to a number of infectious diseases is purchased genetically by another such cheap genetic trick – by a genetic change – not yet known, and unpredictable – which considered by itself, on its own merits, would be raised as an abnormality. I call it a “cheap” genetic trick, though “dirty” would have been better because sickle cell trait has its price: when people with sickle cell trait bear children by each other, about one quarter of their offspring suffer from a virtually lethal condition known as sickle cell anaemia. Not only have I no idea at all what genetic changes would be called for in order to diminish the risk of contracting depressive illnesses or other psychoses, I also have no idea how one could find out. Being in possession of a technique is not enough: one must go about making an exact correlation between the genetic make-up and its outward somatic manifestations in the full awareness that these all depend very largely on the environment – in which I include everything to do with upbringing.

Glover is on safe ground, however, in pointing out that the problem is much more easily soluble in principle than the remedying of genetic defects such as those that give rise to Huntington's chorea and that metabolic disorder phenylketonuria which is responsible for about one per cent of all cases of mental deficiency. Simple though this may be in principle, it is still very far from practical, although I think the real point Glover wants to make is that the ambition to undertake the remedial genetic engineering is an honourable one; but simpler though this procedure is than the reconstruction of the genome as a whole, it is still very far from realistic. Certainly the ambition cannot but be applauded by anyone who thinks that genetic counselling is a wise and humane medical service.

Clones and cloning have been the subject of a good deal of frightened speculation about what those wicked scientists will be up to next – speculation abetted, I am sorry to say, by unscrupulous and, in one case downright dishonest, science writers. Glover is not very good on this subject: cloning has only the connotation of the production of a lineage of replicates of a cell or organism – of a plant propagated by cutting, for example – or a



cell by repeated genetically symmetrical cell divisions. There is no difficulty or unsurmountable obstacle to producing replicate human beings or other mammals by raising a clone by repeated cell divisions of a fertilized egg cell and providing for each of a number of such replicates to be foster-nursed in the womb of some suitably prepared recipient. Such a procedure might have some practical uses in livestock farming but there has been no thought of applying it to human beings because such an adventure would serve no useful purpose.

There is, however, a different usage of cloning – to refer to raising a clone of individuals of known and predetermined genetic make-up by implanting a somatic cell nucleus from the replicand into a fertilized egg whose own nucleus has been extruded or destroyed. I do not think this has been done with any mammal, and I see no reason why it should be applied to human beings and doubt very much if any grant-giving body would fund such a fatuous adventure.

Turning now to the control of thought and behaviour, Glover writes mainly as a philosopher and a felicitous quotation of John Stuart Mill's *On Liberty* sets the tone. As a philosopher, he is close enough to psychology to realize that mind control by procedures other than those already used by schoolteachers and college tutors are still in the science-fictional stage – still belong to the Svengali/Tribble domain of speculation. However, although he mentions these matters in rather general terms, I thought he could with advantage have mentioned particular ways in which modern psychopharma-

cology offers promises and threats. For example, by stimulating or knocking out various specific areas of the hypothalamus (the organ that is essentially the brain of the autonomic nervous system) one can arouse rage, fear, orgasmic pleasure, sleepiness, satiety or voracious hunger. I once pleaded with a famous pharmacologist to turn his thoughts to a pharmacological activation of the satiety centre in the brain thus helping to make it possible to remedy the gravest psychophysical affliction of the middle classes in an affluent society: obesity.

The control of states of mind by the stimulation of areas of the hypothalamus is the most direct mind-control procedure currently known to science. The knowledge we have of the matter is valuable, too, and can help one to interpret pathological states of mind such as the syndrome of which every medical student has at one time or other believed himself to be a victim: “periodic somnolence accompanied by morbid hunger” – the symptom of a particular hypothalamic lesion.

By the suspension equally of disbelief and common sense it is certainly possible to devise a scenario even the most glibly would not believe in: the skilful brain surgeon, for example, who for an enormous fee implants electrodes into a pleasure centre of the hypothalamus connected to an external stimulator which would in due course call into being a new kind of lush or debauchee, one permanently dazed by a kind of continuing orgasm made possible by stimulating the pleasure centre repeatedly – (there is a cruel experiment – which in this country, I am happy to say, would not be

allowed – in which rats are given an opportunity to do just this). It is not, however, rationally conceivable that such behaviour could ever become a threat of the magnitude of that created by heroin; nor, of course, does Glover suppose it could, but he considers, as a good philosopher should, the possible danger of a central control of states of mind by means not involving the implantation of electrodes that might be put to evil uses.

The greatest and nearest threats from new techniques for controlling desires and behaviour are that some groups of people, perhaps governments, will gain further power over others, and put this power to bad ends. By extrapolation Glover develops the philosophically valid conceit that a person could come to live in a kind of symbiosis with an “experience machine” that determined all his moods and feelings – a state of affairs “not compatible with being a person at all”. Plugging into the machine would thus become a kind of suicide.

I cite now a passage illustrating very well Glover's style of thinking, and writing and his splendid sensibility. It is a passage upon the basis of which the reader may decide whether or not this book is for him:

Suppose Stone Age men had been given an opportunity to have the happiest life they could imagine, but at the cost of giving up any chance of further intellectual or emotional development. (The choice could not have been put to them in these terms, but this does not affect the point.) We may think, from our perspective, that accepting this offer would have been a disaster far beyond anything they could understand. And, when we consider handing over control of our brains to machines designed by us now, we cannot tell what expansion of consciousness we are giving up. But we can understand that there is such a loss, and so we are reluctant to accept any modern equivalent of the Stone Age offer. We hope that machines will liberate us from the cycle of production and consumption. But we want to be liberated for, not from, new kinds of activity and understanding.

Glover's book has a few inaccuracies and misjudgments. But it has to do with important matters and is unfailingly interesting to read. I cannot forbear from adding that in my opinion philosophers are very much better employed thinking and writing about such matters than – for example – in such complementary tasks as the speculative, somewhat tedious, and unproductive exercise of a predecessor of Jonathan Glover's as tutor in philosophy at New College: Professor H. H. Price.

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mine the hermetic character of much work in the history of science or to stimulate the writing of general introductory texts. “As head of the history of science and technology group at the Open University, Professor Russell has already put his precepts into practice. He has balanced his own specialized contributions to the history of modern chemistry and of the British chemical community with the preparation of teaching materials of high quality. The fruits of both aspects of his work are to be seen in this book: *Science and Social Change 1700-1900* is a clear, up-to-date, and wide-ranging study of the social history of science since the age of Newton, written with speed, though not exclusively, reference to Britain. Although the results of new and quite detailed research appear from time to time (for example, in the discussion of science in nineteenth-century New Zealand), the book rests heavily on secondary sources.

The mixture is a successful one. Russell chooses his sources judiciously and exploits them with a critical eye. His account of the political context of the acceptance of Newtonianism, of science in the Enlightenment and in revolutionary and Napoleonic France, and of the professionalization of science in the nineteenth century all combine to give a comprehensive view of science with some novel twists. Hence while it is never Russell's intention to offer a sustained reinterpretation, he does raise issues of scholarly substance.

In this respect, his criticism of the currently popular interpretation of Mechanics Institutes as instruments for social control is particularly interesting. Russell's evidence, as he admits, does not rule out the possibility that the promoters of some Mechanics Institutes saw the institutions and their curricula as vehicles for suppressing the political and intellectual aspirations of their working-class members. The diversity that characterized the national network of Institutes in the early and mid-nineteenth century, and the complexity of the local factors which helped to create that diversity, would suggest, however, that a simple explanation applicable to the whole of Britain is not possible. Until we know more about the applica-

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BOOKS

Divide and rule

Swift, the Man, his Works, and the Age
volume three: Dean Swift
by Irvin Ehrenpreis
Methuen, £40.00
ISBN 0 416 85400 1

It is 21 years since the first volume of Irvin Ehrenpreis's massive study of Swift, *The Man, his Works and the Age*, appeared. In his preface then, Ehrenpreis offered this ringing declaration of intent: “I have been less concerned to add than to eliminate fables; and those readers who look for my views on a long train of legendary Swiftiana will search in vain.” Instead of hypothetical speculations on Swift's parentage, or colourful anecdotes about him bitterly eating his food at the servants' table at Moor Park, Ehrenpreis filled the pages of that first volume with detailed, factual accounts of such things as the methods of instruction at Trinity College Dublin, land tenure rights in Ireland and the transactions of the Dublin Philosophical Society.

Twenty-one years later the third and final volume of this work has just appeared. In it Ehrenpreis concludes on the same defiant note, though with just a trace of weariness. Alluding to the story that, after Swift's death his servants exhibited him for money, a story which Johnson popularized in his poem *The Vanity of Human Wishes*, Ehrenpreis observes ruefully: “Scholarship cannot hope to rival the dramatic narratives that Johnson and Scott have embedded in English literary culture. But it can offer materials to those who would rather come near to Swift himself, than be entertained with fascinating legends.”

In the two thousand pages which separate that first declaration from the last, Ehrenpreis provides a truly impressive account of Swift's life and work. He is always careful to place Swift in a specific intellectual and political context, paying as much attention to what a more conventional biographer might call background as to the central figure himself.

When Ehrenpreis embarked upon this study in the late 1950s there was a real need for just such a sober reappraisal. Swift's reputation had suffered much from the attentions of pseudo-biographers which owed more to glib romance than to scholarship. However, in the years since 1968 when Ehrenpreis's second volume appeared, several other scholars have set about the task of re-examining Swift's life and works, and perhaps the most disappointing feature of this final volume is the extent to which Ehren-



“The Subway”, a painting by the American artist George Tooker, reproduced from John Canaday's *What Is Art?* (Hutchinson, £7.95).

preis depends upon the researches of others. Time and again he acknowledges his indebtedness to the work of James Woolley and O. W. Ferguson in particular. At first this might appear a mere scholarly courtesy, yet he defers so frequently to their studies that one soon loses any real sense of Ehrenpreis's own interpretation. The most glaring instance of this occurs in connection with *A Modest Proposal*. Ehrenpreis offers no analysis of this famous pamphlet, but instead advises the reader: “For a definitive analysis of *A Modest Proposal* see Ferguson pp. 170-176.” This is disturbing in two ways. First it seems odd that he should feel no need to offer an account of this, one of Swift's most well-known works. Secondly it is perverse, to say the least, to describe Ferguson's analysis of the pamphlet as “definitive” when *A Modest Proposal* has probably received more critical attention than any of Swift's writings, with the exception of *Gulliver's Travels*.

Another weakness of Ehrenpreis's approach becomes evident in this final volume, where his refusal to entertain fables and legends seems to deal with Swift's personal life, a little over twenty pages only of this one thousand page volume are devoted to the ten-year agony of his relationship with Vanessa; a mere thirty-five pages are devoted to his even closer relationship with Stella till her death in 1728. By contrast, nearly two hundred pages are devoted to a meticulous day-by-day

account of the political manoeuvrings surrounding Swift's *Draper's Letters* with their attacks upon Wood's pension in 1724 and 1725. Even where he does deal with Swift's personal life and affections Ehrenpreis does so in ways which curiously echo Swift's own reticence about such matters. Characteristically enough he totally dismisses the story of Swift's secret marriage to Stella. Elsewhere he declares that he will “pass over the many piquant or touching sentences from Swift's letters to Vanessa” because, he argues, “they would misrepresent the general effect of a man straining to transform a romantic obsession into a placid, playful intimacy.”

Swift composed a number of works, from *Cadenus and Vanessa to Verses on the Death of Dr Swift* containing strong autobiographical elements. All such works share one common characteristic – evasiveness. They conceal more than they reveal and pose more questions than they resolve. They are Swift's authorized versions of his own life and relationships. Yet Ehrenpreis, in this final volume, seems strangely reluctant to probe beneath the surface of these authorized versions, apparently endorsing Swift's own attempts to minimize the significance of his emotional attachments.

Nor is this only true of Swift's relationships with women. In his treatment of Swift's friendships with Addison, Knightley Chetwode, Sir Arthur Acheson and others, Ehrenpreis also ignores some of the more ambiguous

elements in the acquaintanceship. For example, Ehrenpreis describes Addison's letter to Swift in October 1718 as “a beautiful letter . . . blowing freshly upon the coals of their old friendship” but neglects to mention that Swift had been puffing vigorously at these old coals, to little avail, during the previous year. He had written to Addison in July 1717, as soon as he heard that his old friend had been appointed as a Secretary of State. However, Addison did not reply until the following March, just after he had resigned the Secretaryship. The implication of that long silence seems clear. Addison did not trust Swift to respect the distinction between friendship and patronage, and so would not renew an intimacy with him until he had resigned from office. In this context his October letter can be seen as diplomatic and evasive, rather than a beautiful revival of old friendship.

To assist him in his general strategy of resisting hypotheses and legends, Ehrenpreis adopts a technique of strict compartmentalization to inhibit those casual intuitive links by which less scrupulous biographers imply unproven connections between public and private events. The biography is not only divided into three volumes, the volumes are further subdivided into numbered sub-sections. Thus the whole work is broken down into 330 separately numbered and headed episodes. By this process of divide and

rule Ehrenpreis attempts to isolate the various events in his narrative in order to subject them to quasi-scientific analysis. Yet much of this sectionalizing appears arbitrary, and the division of Swift's life into such separate exclusive categories as politics, church affairs, friendships, literary output and so on, makes for inevitable repetitions and discontinuities. Not only is the reader frustrated by these constant interruptions to the narrative flow, but they also prevent the emergence of a complex fully-rounded portrait of Swift as a whole man.

Ehrenpreis is clearly suspicious of those with the temerity, or foolishness, to offer a full-colour portrait on the basis of very little hard evidence. Instead he offers us an accumulation of details, all carefully sifted and tabulated. His painstaking examination of Swift's political attitudes in the 1720s and his analysis of the power struggles within the Church of Ireland during the same period are exemplary pieces of scholarship. If, in the end, the completed biography has the staccato rhythms of a portrait painted by numbers, this surely reflects Ehrenpreis's own decision to forego the more flowing lines of portraiture in favour of a style which at least enables him to attempt precision in titling each detail.

David Nokes

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Editorial choice

Donald Davie and the Responsibilities of Literature
edited by George Dekker
Carcanet, £9.95
ISBN 0 85635 466 X
Some Contemporary Poets of Britain and Ireland: an anthology
edited by Michael Schmidt
Carcanet, £9.95
ISBN 0 85635 469 4

Rather than erect a statue to a critic we provide him with a *Festschrift*. Here, to commemorate Donald Davie on attaining the age of 60, is a collection of articles that may well make him wish he had agreed to find that Hugh Kenner proclaimed him torn between the England of D. H. Lawrence and the America of Ezra Pound, and that Howard Erskine Hill thinks his deplorable of idiom from an earlier age renders him modernist.

These contributors have a point, however, in suggesting that modernism has been an abiding preoccupation in Davie's work; especially the imaginative and modernist associated with Pound. Davie's own feeling is that it has been Davie from the discipline that characterized his earlier work into a poetry which has proved increasingly liberating.

Perhaps it was too much to link, as Davie did in his first book *Purity of Diction in English Verse*, imagery with fascism, although Pound was a notable exponent of both. Nevertheless, in the most useful contribution to the *Festschrift*, Bernard Bergson is doing us all a service by chronicling the fluctuations of Davie's regard for Pound's *Cantos*. In 1965 Davie was still attacking them for their fragmentation; by 1975, it is that same fragmentation that he applauds. Each of these arguments is pursued with considerable force, and one can see what Hugh Kenner means when he declares that Davie “admits rather than theorizes”. However, more attention to theory might have helped to coordinate various aspects of Davie's practice. He certainly is not remarkable for consistency. We find him scolding Robert Lowell for his confessional poetry while finding that of Allen Ginsberg “prophetic”. What is mainly noticeable is the clarity of thought and vigour of tone, and it is that vigour which distinguishes the newly expatriate Davie of 1968 from the professors he left behind him. Howard Erskine Hill thinks his deplorable of idiom from an earlier age renders him modernist.

Press is very much Michael Schmidt's personal creation. The result is testimony, not the quality of contemporary verse, but to the predilections of the editor.

In order to be included in this volume an author would need, in Michael Schmidt's words, “to have picked up useful skills, at first or second hand, from the modernists”. Mostly it is at second hand: Davie's former pupil, Charles Tomlinson, is an undeclared presence here. The rhythms are muted and the language tends to be almost obsessively postmodernist. “bone”, “cold”, “imagistic”, “favourite words; also ‘dark’, ‘light’, ‘sea’, ‘stone’ and ‘water’”. This is the characteristic vocabulary deployed by Michael Schmidt in his own far-from-negligible collections; however, he reprints no verse of his own. Yet modesty ought not to have disenfranchised him from taking his place among them. It did not, after all, prevent him from debarring even more remarkable poets, such as Peter Redgrove, Peter Redgrove and Seamus Heaney, from his earlier publication, *An Introduction to Fifty Modern British Poets*. Even the most distinctive of the figures here presented – Derek Mahon, say, or Dick Davis – seem to be products of critical cultivation rather than artists with something urgent to say.

Philip Hobsbaum

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ENCOUNTER

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BOOKS

A rich seam

The Dukeries Transformed: the social and political development of a twentieth-century coalfield by Robert J. Waller
Oxford University Press, £22.50
ISBN 0 19 821896 6

Robert Waller's Oxford Historical Monograph on the east Nottinghamshire coalfield beneath Sherwood Forest is one of the most original and valuable studies of a coal mining community to have appeared in recent years. It provides a rich vein to be worked by sociologists, economists, geographers and others interested in social aspects of mining.

This is the social history to 1945 of seven new pits sunk between 1918 and 1928 in the Dukeries, transforming a previously agricultural area by the establishment of new model villages in which paternalist mining companies housed their workers. As such it is a rare study of the early growth of a mining settlement rather than (as is usually the case) of its maturity or decline.

The author has made excellent and fertile use of available documentary sources, ranging from the company labour records through a detailed examination of local newspapers to reports by Board of Education Inspectors on schools in the seven villages. These are supplemented by oral evidence drawn from interviews about the interwar period with one hundred local residents. These materials are skilfully used to build up a picture which is significantly different from the usual sociological ideal type of the mature mining community.

Waller emphasizes first and foremost the upheaval, flux and degree of social dislocation which characterized the new communities. Migrants came from all over the country, labour turnover was high, social amenities poor, and the reluctance of the rural district councils to provide adequate services reflected antagonisms between incoming miners and the settled rural population. The colliery villages demonstrated all the confused instability of the classic boom town. As planned communities, they suffered from many defects, comparing unfavourably both with the early new towns or with overbuilt council estates on the fringes of large conurbations.

For the sociology of mining, the greatest interest of the book is as a case

study of the company village. These villages were dominated by the companies which owned them to a far greater extent than most older mining settlements at the period. They controlled not only housing and shopping (keeping the local Co-op out, for example) but also sport, recreation and even the religious activities of the inhabitants. Relative isolation made this control difficult to break, though the high labour turnover showed that many miners voted with their feet. The colliery manager lived in the village; and titled landowners who gave the area its name and enjoyed the coal royalties lived only a short distance away.

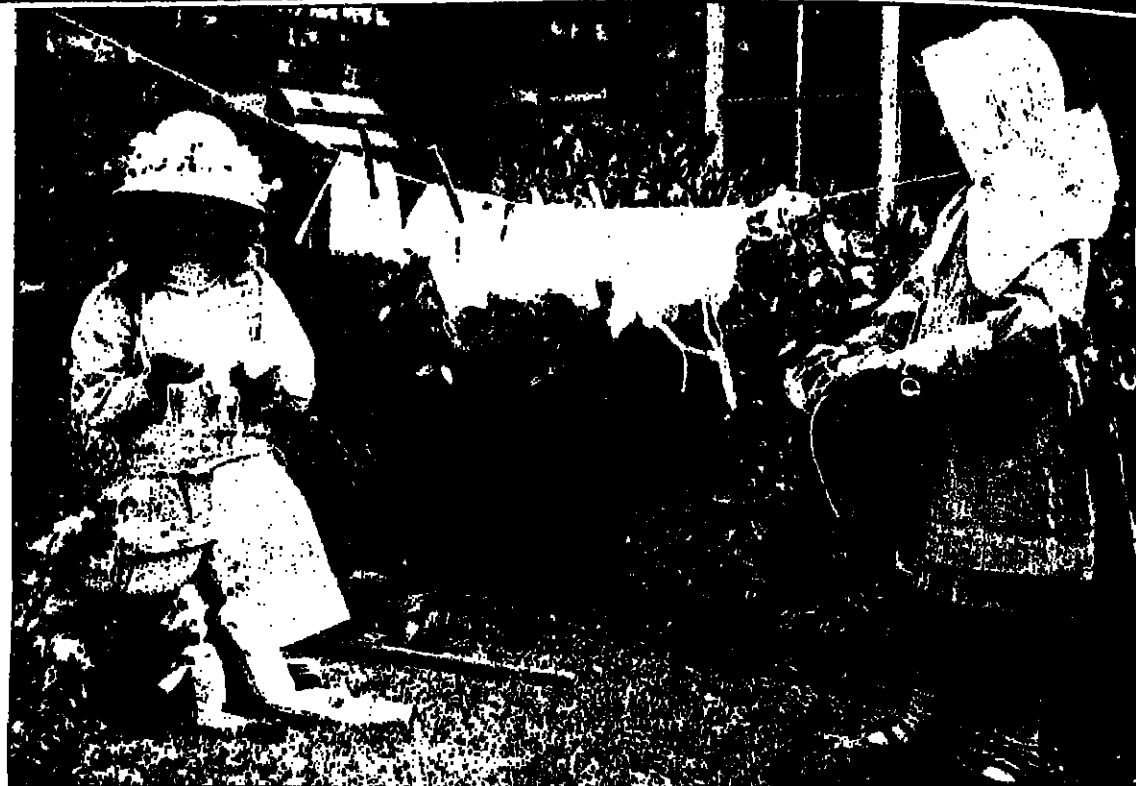
Between 1926 and 1937 the Nottinghamshire coalfield was of course famous for its "non-political" breakaway Spencer Union which was peculiar to the county. Waller chronicles its support at the seven collieries, and shows how the relatively prosperous East Notts pits excluded the official union, the Nottinghamshire Mining Association. Company control was also instrumental in shackling the labour movement politically in the area. The villages regularly returned conservative or liberal local councillors until 1945, and no Labour Party branch was founded in the Sherwood Forest mining villages until the 1940s. In this respect they were "the last of the legions". Traditional proletarian, where were they?

The book is not without its limitations. As social history rather than historical sociology, it lacks an explicit theoretical framework which would have sharpened the analysis and brought out more clearly the exceptionalism of the East Notts case. Middle-range sociological theory in this area has more to offer than Dr Waller will allow.

There is also inadequate discussion of the typicality or otherwise of the locality in comparison with other regions of Britain. Though a useful reminder of the wide variations both within and between coalfields in Britain, the villages were clearly untypical, even of Nottinghamshire as a whole on various indicators such as labour turnover, company dominance and support for Spencerism. And the author's well-detailed shafts against sociological models of the mining community need to be modified to take account of a developmental theory of the character of such settlements. The dominant models which he attacks relate to the periods of maturity and decline, while Dr Waller's fascinating and notable case study is concerned with the conditions of early growth, in which different conditions apply.

Martin Bulmer

Martin Bulmer is the author of *Mining and Social Change: Durham County in the twentieth century*.



Young girls washing dolls' clothes, a picture from Joanna Smith's *Edwardian Children*, published on Monday by Hutchinson at £9.95.

Just deserts

Women's Claims: a study in political economy by Lisa Peattie and Martin Rea
Oxford University Press, £5.95
ISBN 0 19 877180 0

Various groups in contemporary societies make claims in the political, economic and social arenas. These claims are concerned sometimes with rights, sometimes with rewards, sometimes with relationships. They all involve an underlying and not necessarily explicit redefinition of what constitutes the "natural" order. That is the central theory of this thought-provoking book.

Its authors are Martin Rea, an American expert on social policy who has also written extensively on European systems of social welfare (presumably one of the sources of his ideas on claiming), and Lisa Peattie, who is a social anthropologist. To illustrate their theory they take the women's movement and its fight to change the position of women in different spheres of society.

At the outset they set up two

dichotomies between the natural and the artificial and the economic and the social. Neither seems to deserve the centrality it is given in the development of their argument. Nor is the conceptualization of the economic in terms of "natural economic processes" and the social in terms of artificial intervention particularly helpful. Conventional meanings attached to the term natural do of course suggest not just the typical or the norm but also that which is intrinsic to human behaviour and as such unchangeable or something to which policy must accommodate. However, the theory of claims must rest on the acceptance that there is no such thing as a natural order but a range of institutional arrangements which can be or are changed in response to claiming. These claims involve groups redefining what they consider to be their just deserts, which lead to new demands or bids or attempts to extract improvements for the group in relation to other groups.

The way Rea and Peattie put it is that perceptions of reality and of what constitutes the natural order are being altered by those making the claims. They suggest that there are three major realms in which claims are made: the family; the economy; and the government. There is nothing wrong with breaking down claims in this way for the purpose of analysis. The authors in any case recognize that

the categories are blurred at the edges so that for example trade unions may make claims in relation to both economy and government. But again the concept of the artificial gets in the way when the authors seem to be saying that intervention at the collective level is artificial. In fact it could be argued that such intervention is common to all societies and as such is part of the "natural order".

Taking their illustration of women's claims they describe the renegotiation of the division of labour in the household between husbands and wives, summarizing the research literature on housework and notions of the "natural" role of women as nurturers. There is, however, little about how women mount these claims within the family, how they are resisted, what the consequences are for "intra-familial conflict", in what circumstances claims are conceded and what sanctions are imposed when they are refused.

Claims in the economic sphere are linked to claims in the family sphere. Thus because women are at work they claim more within the family. The employment of women upsets traditional reciprocal claim systems between spouses where bread-winning is traded off for nurturing. There is, however, plenty of research to suggest that women's greater economic independence and increased hours in the labour force have not led to an equal reduction in the time spent on domestic work.

Rea and Peattie put forward an interesting explanation. They suggest that it is necessary to distinguish between more participation in outside work and a long-term attachment to it. Giving figures showing the high proportion of women in part-time work they suggest that claims in the home may be more muted in these circumstances. They may well be correct although it is important to distinguish between the time spent at work and the intensity of the commitment to it. Part-time work can involve a deep attachment. The authors may well underestimate the degree to which the participatory revolution has been accompanied by attachment. Moreover there are various interesting changes taking place currently. First, more women are working full-time; second, earnings for part-time work seem likely to increase as the result of part-time workers' charters, third, job sharing in which highly-paid tasks become available on a part-time basis seems likely to grow. These last two are now the subject of claims by women in the UK, although they are not mentioned in the book.

The next task must be to test the theory empirically. We need to know more about the circumstances in which ideas of the natural constitute a break on claiming and when these ideas are challenged. That is one of the fundamental questions which is not answered in this interesting book.

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Urban Poverty

James H. Treble's book *Urban Poverty in Britain 1830-1971*, which was first published in 1979, is released as a paperback by Methuen at £4.95.

Dr Treble examines aspects of nineteenth-century poverty - low pay, casual labour, unemployment, sickness, widowhood, large families, old age, drink - and discusses society's response to the problems. He also looks at the changes in patterns of food consumption and housing caused by the influx of people into the large industrial towns.

BOOKS

Later dialogues

Plato's Late Ontology: a riddle resolved by Kenneth M. Sayre
Princeton University Press, £24.70
ISBN 0 691 07277 9

Plato's Parmenides: translation and analysis by R. E. Allen
Blackwell, £25.00
ISBN 0 631 13121 3

Plato's later dialogues are not much loved by Greek scholars. Nor were they much read by philosophers until Gilbert Ryle blew the dust off them in a famous article of 1939. Now the *Theaetetus* and *Sophist* are not only read but acclaimed as powerful works of analytic philosophy; and they are themselves the subject of a great deal of exact analysis.

But while Plato became more analytical in his old age, he also became more Pythagorean; and the keener appreciation of his analytical powers becomes, the more puzzling and refractory do readers find the reports of his famous "unwritten doctrines" and the philosophy of limit and unlimited in the *Philebus*, a dialogue which resists all attempts at precise interpretation.

Students of the *Phaedo* and the *Republic* know a Platonism which treats the Forms as the basic realities. Aristotle's Plato identifies the Forms with numbers, and analyses them into two more basic elements, the One and the Indefinite Dyad (alternatively called the Great and the Small) which are indeed the elements of all things. The Aristotelian evidence has been vigorously interpreted. Writers of the Twentieth century hold that it is reliable information about a body of secret Platonic doctrine reserved for his close associates alone and kept from the dialogue-reading public at large. Harold Cherniss thinks it is completely unworthy, and derives not from oral teaching but from misinterpretation of the dialogues.

In Kenneth Sayre's *Plato's Late Ontology* a *via media* is proposed: Plato did from time to time develop new ideas in lectures and in other oral contexts, and these same ideas he tried out in his dialogues, too; Aristotle was not very good at understanding their precise meaning, but he got their general drift right, and what he ascribes to Plato in the *Metaphysics* corresponds well enough with the positive hypotheses of Part II of the *Parmenides*, which Sayre describes as

"a lavish defence of Pythagorean ontology against Eleatic attack".

Common sense applauds this interpretative strategy, which (as its author notes with pleasure) goes back at least as far as Porphyry. The difficulty has always been one of making it work: of getting light on obscure passages of the dialogues from some equally obscure bits of Aristotle and *vice versa*. Most people, for example, would concede that there is a rough resemblance between Plato's talk of the more and the less (as characteristic of the unlimited) in the *Philebus*, and Aristotle's introduction of the Great and the Small; although R. E. Allen in *Plato's Parmenides* considers it "plainly... a merely verbal resemblance".

But Aristotle is discussing the principles of transcendent Forms, whereas the *Philebus* is apparently talking about the imposition of limiting ratios on qualitative continua in the sensible world, without a hint that there is any explanatory function Forms are here needed to perform. Most people, accordingly, would be content to leave the resemblance as just that. Sayre builds an elaborate network of identity between the concepts of the *Philebus* and those in Aristotle, and maintains that the limiting numbers and measures of the dialogue are the Forms, even though unlike the Forms they do not exist independently of sensible things. It is as if he is determined to achieve a synthesis by any methods and at whatever price.

The enterprise commands admiration for its energy and ingenuity. But one wishes that the author had more often stopped to ask himself philosophical and methodological questions: If Plato really held, for example, that the limits of the *Philebus* are Forms, does either the theory of Forms or the classificatory scheme of the dialogue remain coherent? Would the introduction of Forms improve or weaken the scheme's explanatory properties? Why did Plato not choose to say that limits are Forms? The failure of Sayre's speculations to command conviction suggests a false premise. Perhaps Plato never worked out a determinate Pythagorean system, but only tried out two or three different guesses as to how such a system might look.

The second part of Plato's *Parmenides* consists of a formidable sequence of antinomies about the One. One of the reasons why Sayre, like Cornford before him, can find a good deal of Pythagorean doctrine in the dialogue is that he takes Plato's One to be systematically ambiguous. Thus if in one set of arguments Plato canvasses the notion of an unlimited plurality which is not a plurality of numbers, but treats that notion as incoherent in the contrasting

precise meaning, but he got their general drift right, and what he ascribes to Plato in the *Metaphysics* corresponds well enough with the positive hypotheses of Part II of the *Parmenides*, which Sayre describes as

straightforward reading of Part II as forming "a massive, reticulated aporia" or philosophical puzzle.

It is, unfortunately, only in this and one other respect that Allen's book improves on its predecessor in this genre. Cornford's *Plato and Parmenides* had the annoying habit of leaving out the admittedly negligible replies of Aristotle's interlocutor Aristoteles (no relation) in Part II, thus subtly removing the dialectical flavour of the original. Allen has done us a service in putting it back in again.

In his preface he says: "Very little in this book is new: almost everything has been said before, except that it needed to be connected a little differently. F. M. Cornford is the foundation of it all." All too true: Cornford, moreover, is brisk and clear. Allen is wordy and misty. He presses a line on the centrality of paradoxes of part and whole in both parts of the dialogue which was worth pursuing. But the book lacks authority. It has no bibliography to speak of (Allen has deliberately eschewed any close encounter with postwar scholarship on the *Parmenides*) and no general index.

Malcolm Schofield

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Motivated by terror of change

An Introduction to Plato's Laws by R. F. Stalley
Blackwell, £15.00
ISBN 0 631 13399 2

Plato's *Laws* is probably nobody's favourite. It is very long; it has no clear structure; its style is difficult and often tedious. Despite its influence in the history of legal and political thought, philosophers have paid it only piecemeal attention; they have tended to treat it as a disillusioned afterthought to the *Republic*, an old man's expression of pessimistic resignation, written for an audience whose intellectual capacity he reckoned distinctly modest.

Stalley's book is the first serious attempt in English at a genuinely philosophical commentary on the *Laws*. He has sensibly chosen a topic-by-topic approach which abandons the meandering order of Plato's presentation. On each topic he seeks both to explicate the position of the *Laws*, and to relate its arguments to views proposed in earlier dialogues, helpfully listing at the head of each chapter the main passages he will discuss. He



An ancient bust of Plato

brings to this task a talent for lucid exposition and sympathetic criticism that is altogether admirable. Occasionally he descends to more summary, most obviously in his chapter on education, but this is rare: on several philosophical issues, and on the vexed scholarly question of the relation between the proposals of the *Laws* and the *Republic*, he offers substantial new insights.

The work's political aspect must of course remain central. Critics like Popper have found in it only a rigid and oppressive gerontocracy, motivated by terror of change, and obsessed by the ideal of obedience to authority. Stalley does not conceal Plato's faults: his criticisms are often sharp. But he offers interpretations of Plato's intentions that are both more generous than Popper's and more plausible. Plato's objections to, and criticisms of, even the

constitutional provisions of even the "openness" of modern states. But Popper's instinct was right, even if his analysis was faulty, for Plato has misapprehended his own principle, missing the distinction between constitutional form and substantive law. Similarly,

the convolutions of his electoral and administrative procedures are designed not for repression, but to restrain the power of individual magistrates: as such they are well conceived. There is no cult of authority, except as embodied in law, and the emergence of a despotic Führer is made virtually impossible. Yet a version of the Popperian criticism stands. Plato's state, "for all its safeguards against the tyranny of a single official, offers little protection to an individual or group who falls out with the authorities as a whole".

Where Popper resorts to woolly, if thunderous denunciations, Stalley's distinctions bring the issue into sharp focus. They are less those of Germany in the thirties than of Greenham Common in 1983.

Andrew Barker

Andrew Barker is lecturer in philosophy at the University of Warwick.

Sources for Ancient History is edited by Michael Crawford and published by Cambridge University Press at £19.50 and £6.95. Its four essays describe the nature of the available sources from antiquity.

Causes of racism

Race, Ethnicity and Power, a comparative study by Donald G. Baker
Routledge & Kegan Paul, £14.95
ISBN 0 7100 9467 1
Introduction to Race Relations by E. Ellis Cashmore and Barry Troyna
Routledge & Kegan Paul, £5.95
ISBN 0 7100 9930 4

Although quite different in their scope and intention, these two books share a number of common assumptions. They both view race relations as largely dependent on the distribution of power in society, are critical of Marxist interpretations as unnecessarily narrow and deterministic, and emphasize the complex, multi-causal origins of contemporary patterns of race relations. The authors display a healthy lack of dogmatism and a sensible, sceptical use of research findings drawn from several disciplines. In other respects the contents of these two books are quite distinct.

Donald Baker's study is an extremely ambitious attempt to compare and contrast the development of race and ethnic relations in six different societies: the United States, Canada, Australia, New Zealand, South Africa and Rhodesia. These were selected on the grounds that they share a common history of British colonialism and are, therefore, to the Marxist's intellectual terminology, "Anglo-fragments".

In view of Baker's initial insistence on the analysis of power as the starting-point for the comparative study of race relations, it might seem paradoxical to select societies on the basis of shared cultural traditions. The justification for this procedure is to control the number of variables in order to make the task of comparison more manageable. However, it is also true that most of these societies share a series of other characteristics: they were all significant settler, as opposed to sojourner, societies; they had a long association with Britain; and, for varying lengths of time, they were under the ultimate authority of the metropolitan government in Westminster. Quite how significant the British cultural inheritance has been for the development of race relations remains open to question. For, as Baker readily admits, "values unsupported by power" appear to have little capacity to change patterns of racial domination.

The most original chapters of the book are those concerned with the emergence of "deleg" groups. Interesting comparisons between African and French Canadian, white South African and white Rhodesian, the interplay between power, economic development and race relations, and the discussion of the psychological bases of inter-group encounters. These provide a series of fascinating insights into the nature of race relations. In my opinion, (and the more formal, and sometimes tautological, propositions to be found in the earlier and concluding chapters. While these contributions make the book well worth reading, this is not always an easy task because many of the chapters were originally published as journal articles. There is a degree of overlap and unnecessary repetition. This is a parti-

cularly unfortunate waste of space since the argument is highly condensed, an inevitable consequence of trying to summarize the experience of six complex societies, over several centuries, in precisely two hundred pages.

Cashmore and Troyna's *Introduction to Race Relations* is a textbook aimed at the sixth form and first-year undergraduate market. The claim, on the cover, that it represents a "re-definition" of the whole field of race relations is, of course, pretentious nonsense. It is a conventional textbook, in many respects far too conventional, almost exclusively confined to the British and North American experience of racial and ethnic contact, and to studies based on these societies. The few chapters which deal with the origin of racial ideas, labour migration, employment, inner cities, youth, education, fascism and the media. To its credit, the references are up-to-date; it includes a useful bibliography, and the chapters dealing with educational issues and the media, topics on which the authors have undertaken original research, are perceptive, comprehensive and balanced.

Unfortunately, much of the rest of the book is not of the same quality. Cashmore and Troyna have an irritating tendency to patronize their readers. Even sixth-formers hardly need to be provided with fictional accounts of unemployed youths committing suicide in order to make the simple point that failure to find work in contemporary industrial society is an important factor undermining an individual's self-esteem.

There are also frequent lapses in style. To give just two examples: race is described as "one of the great

diabolic problems of our time"; technical words are referred to as "trade terms"; there is a reference in the debate over monogenesis and polygenesis to the "Adam and Eve scenario"; Jensen is accused of portraying black children as "intellectually thick"; and naive, assimilationist views are attacked for failing to "x-ray the social structures lying behind the race relations situation". This is the type of writing that gives social science a bad name. It is reminiscent of those execrable North American college textbooks, complete with instructors' manuals and multiple-choice questions at the end of each chapter.

It is a great pity to have to conclude on such a negative note since the authors, if they could, only restrain their penchant for trivialization, are clearly capable of writing an excellent introduction to the field.

John Stone

John Stone is reader in social science and administration at Goldsmiths' College, University of London.

Urban Poverty

James H. Treble's book *Urban Poverty in Britain 1830-1971*, which was first published in 1979, is released as a paperback by Methuen at £4.95.

Dr Treble examines aspects of nineteenth-century poverty - low pay, casual labour, unemployment, sickness, widowhood, large families, old age, drink - and discusses society's response to the problems. He also looks at the changes in patterns of food consumption and housing caused by the influx of people into the large industrial towns.

Presenting diverse sources

The Greek World 479-323 BC by Simon Hornblower
Methuen, £13.95 and £5.95
ISBN 0 416 74990 9 and 75000 1

From the cover illustration onwards the orientation of this book is clear. A history of classical Greece adorned, not with the Parthenon but with the Nike, a monument from Xanthos, offers a portrait of the Greek world that avoids the traditional concentration on the glories of Greece's most glorious culture. The programme is announced early on: the evidence used will not be exclusively literary, but drawn from the findings of archaeology and the study of inscriptions, of art and coins. With admirable compass and concision, these diverse sources of evidence are deployed to offer an up-to-date survey of our knowledge of two centuries of Greek history.

Yet, with some exceptions the outline of Greek history presented here is no accident. The dates which mark the book correspond to the lives of the few decades delimited by the second period of Greek history, the Hellenistic period. Despite new discoveries,

new economic and social perspectives, one cannot escape the dominance of the literary sources.

The book is most interesting when it breaks away from the knotty discussion of traditional vexed questions - the causes of the Peloponnesian War, the Peace of Callias, Isopsephism, the Delian League, Alexander's intentions - on which Dr Hornblower is remarkably positive in his views, to discuss matters like the cultural consequences of the Peloponnesian War (the rise of professionalism, of the monograph, of artillery, and so on) or to offer a mordant character sketch of Corinth or Thebes, or of the Thessalian *ethne* and their share in the cultural Hellenism of Greece.

He interestingly argues that the emotion of envy determined the behaviour of cities like Thebes, or individuals in classical Greece. He emphasizes the difficulties Greek states had in supporting their own citizens, which makes Sparta's failure to create new ones (criticized by the Emperor Claudius) more forgivable. They preferred always to export hungry mouths rather than to import corn.

As the author of a study of Mausolus of Caria, Dr Hornblower naturally keeps well in view the Hellenic aspirations or traits of those on the fringes of the Greek world. The symbiotic nature of Greece's relations with Persia is well brought out: not least, Persia was an important source of cash for small city-states which, without technology, were unable to produce much money. They were able to produce much money, they were able to produce much money, they were able to produce much money. Athens, control an empire. In many ways, it was Persia which made the

Greeks, and Greek consciousness, what they were.

The author arrests the reader with many vivid details that illustrate the cosmopolitan nature of Greek cities: new evidence for the presence of Greek Zoroastrians at Sardis, for example, and even the superiority of women's hair for making catapult ropes. Unfortunately, the reader will also be arrested by less attractive features of the author's style. He has a predilection for mathematical symbols where a more considerate writer would use an English phrase and be liked to cumulate punctuation to the point of unrecognizability. On page 173, for example, I counted, in one sentence of ten lines, four sets of brackets, three colons, three semicolons and one dash.

And he makes few concessions to the student reader, rarely explaining the significance of abbreviations: heinous examples are *HCT* and *Loeb Minor Attic Orators* (the student will seek *Loeb* in the catalogue in vain), and the introduction of the *Oxyrhynchus Papyri* only to refer to him thereafter as *Holl. Ox.*, which sounds like some monster from Norse mythology.

The fact remains that this is the fullest and most judicious account in this compass that the student can obtain, and those who will persevere with it will learn a good deal.

Richard Stoneman

Richard Stoneman is writing a history of "archaeological" exploration in Greece.

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